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# Vol. I

## TRANSCRIPT OF RECORD

## Supreme Court of the United States

OCTOBER TERM, 1935

## No. 34

BORAX CONSOLIDATED, LIMITED, AND PACIFIC COAST BORAX COMPANY, PETITIONERS,

*vs.*

THE CITY OF LOS ANGELES

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED APRIL 27, 1935.

CERTIORARI GRANTED JUNE 3, 1935.

# SUPREME COURT OF THE UNITED STATES

## OCTOBER TERM, 1935

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## VOL. I

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INDEX.


| | Page |
|---|---|
| Proceedings in U. S. C. C. A., Ninth Circuit | 1 |
| Citation and service | 2 |
| Record from Superior Court of Los Angeles County | 4 |
| Complaint | 4 |
| Petition for removal to Federal Court | 14 |
| Bond on removal | 24 |
| Order of removal | 27 |
| Record from D. C. U. S., Southern California | 29 |
| Motion to remand to State Court | 29 |
| Order denying motion to remand | 32 |
| Answer of defendants | 33 |
| Exhibit "A"—Certificate No. 807 | 96 |
| Exhibit "B"—Corporation grant deed | 98 |
| Exhibit "C"—Quitclaim deed | 100 |
| Exhibit "D"—Agreement between Pacific Coast Borax Co. and City of Los Angeles, March 28, 1928 | 103 |


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Judd & Detweiler (Inc.), Printers, Washington, D. C., August 20, 1935.

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| | Page |
|---|---|
| Reply | 109 |
| Memorandum decision, Cosgrave, J. | 161 |
| Findings of fact and conclusions of law | 165 |
| Decree | 178 |
| Statement of evidence | 186 |
| Caption | 186 |
| Colloquy | 187 |
| Testimony of Charles A. Hale | 217 |
| Warren Egbert | 220 |
| David E. Hughes | 222 |
| Warren G. Egbert (recalled) | 223 |
| Frederick C. Turner | 228 |
| Charles A. Hale (recalled) | 234 |
| Frederick C. Turner (recalled) | 239 |
| Plaintiff's Exhibit No. 6—Report of survey by F. C. Turner | 240 |
| Testimony of David E. Hughes (recalled) | 304 |
| Langdon C. Easton | 305 |
| Plaintiff's Exhibit 9—Record of David E. Hughes | 307 |
| Testimony of David E. Hughes (recalled) | 314 |
| Plaintiff's Exhibit 12—Pamphlet entitled "United States Harbor Lines for Inner and Outer Harbors, San Pedro, Cal." | 349 |
| Offer in evidence—Statement of William Banning | 371 |
| Testimony of Gerald C. Fitzgerald | 375 |
| Harrison R. McLaurin | 385 |
| Eugene W. Merwin | 386 |
| Carrol M. Wakeman | 390 |
| Plaintiff's Exhibit 19—Tide records | 392 |
| Testimony of Harry Leypoldt | 397 |
| Plaintiff's Exhibit 24—Reports of Army Engineer for Southern District of California for years 1902 to 1907, inc.: | |
| 1902 | 410 |
| 1903 | 433 |
| 1904 | 467 |
| 1905 | 524 |
| 1906 | 567 |
| 1907 | 598 |
| Testimony of Charles A. Hale (recalled) | 631 |
| Motions to dismiss | 633 |
| Ruling of Court | 634 |
| Defendant's Exhibit "A"—Patent to William Banning with proceedings antecedent thereto | 637 |
| Defendant's Exhibit "B"—Norway agreement, oath, bond, etc. | 662 |
| Defendant's Exhibit "C"—Norway field notes | 681 |
| Offers in evidence | 688 |
| Order settling statement of evidence | 691 |
| Petition for appeal | 692 |
| Order allowing appeal | 693 |
| Assignments of error | 694 |
| Stipulation for costs on appeal | 699 |

| | Page |
|---|---|
| Stipulation for omission of parts of record | 702 |
| Stipulation re book of exhibits | 703 |
| Præcipe for transcript of record | 705 |
| Counter præcipe for transcript of record | 707 |
| Clerk's certificate | 709 |
| Order of submission | 713 |
| Order directing filing of opinion and decree | 714 |
| Opinion, Wilbur, J. | 715 |
| Decree | 733 |
| Order denying petition for rehearing | 734 |
| Order staying issuance of mandate | 735 |
| Clerk's certificate | 736 |
| Order allowing certiorari | 737 |

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IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT

| | |
|---|---|
| THE CITY OF LOS ANGELES, a municipal corporation, Plaintiff, | |
| vs. | No. Q-12-J |
| BORAX CONSOLIDATED LIMITED, et al., Defendants. | In Equity |

UNITED STATES OF AMERICA, SS.

To BORAX CONSOLIDATED LIMITED, an English Corporation, and

PACIFIC COAST BORAX COMPANY, a Nevada Corporation, GREETING:

You and each of you are hereby cited and admonished to appear in the United States Circuit Court of Appeals for the Ninth Circuit at and in the City of San Francisco, State of California, on the 9 day of January, 1934, pursuant to an order allowing an appeal from the District

Court of the United States, for the Southern District of California, Central Division, which order was made and entered herein on the 12 day of December, 1933, in a suit in equity wherein the City of Los Angeles, a municipal corporation, is appellant, and you are the appellees, to show cause if any there be why the final decree rendered against the City of Los Angeles, a municipal corporation, on the 8th day of December, 1933, in the equity suit herein mentioned, should not be reversed, and why speedy justice should not be done to the parties in their behalf.

WITNESS, the Honorable, Geo. Cosgrave, Judge of the District Court of the United States, this 12 day of December, 1933, and in the one hundred and fifty-eighth year of the independence of the United States of America.

Geo. Cosgrave,
United States District Judge for the Southern District of California

[Endorsed]: Received copy of the within CITATION ON APPEAL this 12 day of December, 1933. Newlin & Ashburn Attorneys for Defendants & Appellees Borax Consolidated, Ltd. & Pacific Coast Borax Co., a Nevada corporation. Filed Dec. 12, 1933 R. S. Zimmerman, Clerk, By Edmund L. Smith, Deputy Clerk.

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA IN AND FOR THE COUNTY OF LOS ANGELES

The City of Los Angeles, a municipal corporation,

Plaintiff,

vs.

Borax Consolidated Limited, an English corporation, Pacific Coast Borax Company, a California corporation, Pacific Coast Borax Company, a Nevada Corporation, William Banning, William P. Banning, Katharine Stewart Banning, Joseph B. Banning, Jr., Katharine Banning Graves, Banning Company, a corporation, John C. Macfarland, as Executor of the Last Will and Testament of Hancock Banning, deceased, John Doe Corporation One, a corporation, John Doe Corporation Two, a corporation, John Doe One, John Doe Two, John Doe Three, John Doe Four, John Doe Five, Jane Doe One, Jane Doe Two, Jane Doe Three, Jane Doe Four, Jane Doe Five,

Defendants.

No.

COMPLAINT to QUIET TITLE

This plaintiff alleges:

I

That prior to, and on, and at all times since, May 1, 1911, this plaintiff, The City of Los Angeles, a municipal

corporation, was, and now is, a municipal corporation of the State of California, one of said state's political subdivisions, organized, existing, and operating under and by virtue of a freeholders' charter adopted and amended in pursuance of the provisions of Section 8 of Article XI of the Constitution of the State of California.

II

That plaintiff is informed and believes and on that ground alleges that at all times herein mentioned defendant Borax Consolidated Limited, an English corporation, was and now is a corporation, organized and existing under and by virtue of the laws of England, doing business within the State of California, with its principal place of business in said state at Wilmington in The City of Los Angeles;

III

That plaintiff is informed and believes and on that ground alleges that at all times herein mentioned defendant Pacific Coast Borax Company, a California corporation, was and now is a corporation, organized and existing under and by virtue of the laws of the State of California, with its principal place of business in the City and County of San Francisco in said state;

IV

That plaintiff is informed and believes and on that ground alleges that at all times herein mentioned defendant Pacific Coast Borax Company, a Nevada corporation, was and now is a corporation, organized and existing under and by virtue of the laws of the State of Nevada,

doing business within the State of California, with its principal place of business within the State of California at Wilmington in The City of Los Angeles;

V

That plaintiff is informed and believes and on that ground alleges that at all times herein mentioned defendant Banning Company, a corporation, was and now is a corporation, organized and existing under and by virtue of the laws of the State of California with its principal place of business in The City of Los Angeles;

VI

That plaintiff is informed and believes and on that ground alleges that defendant John C. Macfarland, as Executor of the Last will and Testament of Hancock Banning, deceased, is the duly qualified and acting Executor of the Last Will and Testament of Hancock Banning, deceased;

VII

That John Doe Corporation One, a corporation, and John Doe Corporation Two, a corporation, defendants, are sued herein under fictitious names for the reason that their true names, and the places where they are incorporated, are to plaintiff unknown; that when the true names of said corporations, and places where incorporated, are ascertained, plaintiff will move to amend this complaint accordingly;

VIII

That John Doe One, John Doe Two, John Doe Three, John Doe Four, John Doe Five, Jane Doe One, Jane Doe

Two, Jane Doe Three, Jane Doe Four, and Jane Doe Five, defendants, are sued herein under fictitious names for the reason that their true names are to plaintiff unknown; that when their true names are ascertained plaintiff will move to amend this complaint accordingly;

IX

That on September 9, 1850. the date of the admission of the State of California into the Union of the United States of America, said state embraced, and at all times since has embraced, and now embraces, within its boundaries, and prior to and on May 1, 1911, The City of Los Angeles, a municipal corporation, plaintiff, embraced, and at all times since has embraced, and now embraces, within its boundaries, the property hereinafter in Paragraph XII described and that certain bay or harbor known as Wilmington Bay, or as Wilmington Harbor, or as the inner bay of San Pedro, now known as and being Los Angeles Harbor, being a harbor, an estuary, a bay, or an inlet of the Pacific Ocean; that said harbor, estuary, bay, or inlet, at all times herein mentioned, was, and now is, navigable tide waters of the State of California and of the United States;

X

That by an act of the legislature of the State of California, approved and effective May 1, 1911, (Stats. 1911, page 1256), and by an act of the legislature of said state amendatory thereof, approved April 20, 1917, effective July 27, 1917, (Stats. 1917, page 159), the State of California granted to plaintiff, The City of Los Angeles, a municipal corporation, and to its successors, all

the right, title, and interest of the State of California, held by said state by virtue of its sovereignty, in and to all tide lands and submerged lands, whether filled or unfilled, within the then boundaries of The City of Los Angeles, and situated below the line of mean high tide of the Pacific Ocean, or of any harbor, estuary, bay, or inlet of the Pacific Ocean within said boundaries of The City of Los Angeles, to be forever held by said city, and by its successors, in trust for the uses and purposes, and upon the express conditions, following, to wit, that said lands shall be used by said city, and by its successors, solely for the establishment, improvement, and conduct of a harbor, and for the construction, maintenance, and operation thereon of wharves, docks, piers, slips, quays, and other utilities, structures, and appliances necessary or convenient for the promotion and accommodation of commerce and navigation;

XI

That at all times herein mentioned the lands in Paragraph XII hereof described were, and now are, tide lands and submerged lands, and situated below the line of mean high tide of the Pacific Ocean, and situated within, and below the line of mean high tide of, the said harbor, estuary, bay, or inlet of the Pacific Ocean formerly known as Wilmington Bay, or as Wilmington Harbor, or as the inner bay of San Pedro and now known as Los Angeles Harbor, within the State of California and of The City of Los Angeles; that the said lands in Paragraph XII hereof described were, at all times during the period of from September 9, 1850, to May 1, 1911, owned and held by said State of California by virtue of its sovereignty; that

said lands in Paragraph XII hereof described were, on and at all times since, said May 1, 1911, and now are, tide lands and submerged lands, filled and unfilled, owned by plaintiff, The City of Los Angeles, a municipal corporation, by virtue of said grant from said State of California, subject only to the trust for the uses and purposes, and upon the express conditions, therein and hereinabove mentioned.

XII

That said tide lands and submerged lands are described as follows, to wit,

Being a portion of Lot One (1) of Section Eight (8) in Township Five (5) South of Range Thirteen (13) West of San Bernardino Meridian, commonly known as Mormon Island, in Los Angeles Harbor (formerly known as Wilmington Bay, and as Wilmington Harbor, and as the inner bay of San Pedro); in the City of and County of Los Angeles, State of California, more particularly described as follows, to wit,

The true point of beginning is located as follows, to wit, Beginning at Station Four Fifty Six (456) of the United States Harbor Lines as established by the Secretary of War July 29, 1908, said Station Four Fifty Six (456) being identical with meander corner No. 3 of the survey of said Mormon Island by W. H. Norway, Deputy Surveyor, under his contract with Theo Wagner U. S. Surveyor General of California bearing date of March 10, 1880, commenced May 22, 1880, and completed May 24, 1880; thence northerly along the meander line of said Norway survey, North 10°59'00" West, to the northerly line of the property described in and conveyed by grant deed of Hancock Banning and Anne Ophelia Banning, his

wife, to The City of Los Angeles, dated December 13, 1922, recorded December 30, 1922, in Book 1742, at page 132, of the Official Records of the said County of Los Angeles, a distance of 302.08 feet, which is the true point of beginning:

Thence from said true point of beginning northerly along the meander line of said Norway survey, North 10°59'00" West, to meander corner No. 4 of said Norway survey, a distance of 60.57 feet; thence northerly along the meander line of said Norway survey, North 19°45'00" West, to meander corner No. 5 of said Norway survey, a distance of 563.10 feet; thence northerly along the meander line of said Norway survey, North 0°58'40" West, to meander corner No. 6 of said Norway survey, a distance of 158.20 feet; thence northeasterly along the meander line of said Norway survey, North 71°19'40" East, to meander corner No. 7 of said Norway survey, a distance of 99.00 feet; thence southeasterly along the meander line of said Norway survey South 57°58'20" East, to meander corner No. 8 of said Norway survey a distance of 429.40 feet; thence southerly along the meander line of said Norway survey, South 16°14'40" East, to meander corner No. 9 of said Norway survey, a distance of 190.20 feet; thence southeasterly along the meander line of said Norway survey, South 60°13'20" East to meander corner No. 10 of said Norway survey, a distance of 264.20 feet; thence southeasterly along the meander line of said Norway survey, South 22°14'10" East, to meander corner No. 11 of said Norway survey, a distance of 207.40 feet; thence southwesterly along the meander line of said Norway survey, South 30°12'20"

West, to the said northerly line of the property described in and conveyed by grant deed of Hancock Banning and Anne Ophelia Banning, his wife, above mentioned, a distance of 177.87 feet; thence westerly along said northerly line, North 78°23'00" West to the 5.1-foot contour line of the survey of a portion of Mormon Island and adjacent waters, San Pedro Inner Harbor, by F. G. Dessery, C. E., July, 1909, a distance of 78.25 feet; thence North 24°52 33" East a distance of 132.47 feet to a point on said 5.1-foot contour line; thence North 7°36 39" East a distance of 117.03 feet to a point on said 5.1-foot contour line; thence North 33°47 48" West a distance of 74.61 feet to a point on said 5.1-foot contour line; thence South 71°50 00" West a distance of 51.36 feet to a point on said 5.1-foot contour line; thence South 11°01'55" West a distance of 121.24 feet to a point on said 5.1-foot contour line; thence South 25° 47' 43" West to the said northerly line of the property described in and conveyed by grant deed of Hancock Banning and Anne Ophelia Banning, his wife, above mentioned, a distance of 156.08 feet; thence westerly along said northerly line, North 78°23 00" West, to the true point of beginning, a distance of 345.00 feet.

XIII.

That the defendants Borax Consolidated Limited, an English corporation, Pacific Coast Borax Company, a California Corporation, Pacific Coast Borax Company, a Nevada corporation, William Banning, William P. Banning, Katherine Stewart Banning, Joseph B. Banning, Jr., Katherine Banning Graves, Banning Company, a corporation, John C. Macfarland, as Executor of the Last Will and Testament of Hancock Banning, deceased,

John Doe Corporation One, a corporation, John Doe Corporation Two, a corporation; John Doe One, John Doe Two, John Doe Three, John Doe Four, John Doe Five, Jane Doe One, Jane Doe Two, Jane Doe Three, Jane Doe Four, and Jane Doe Five, and each of them, wrongfully claim some estate or interest in and to the lands hereinabove in Paragraph XII described adverse to plaintiff, whereas in truth and in fact said defendants have, and each of them has, no estate or interest in said lands or any part thereof; that plaintiff is informed and believes and on that ground alleges that each and all of said defendants assert claim to some estate or interest in or to said lands or some part thereof under an alleged common scource of title, to wit, under a pretended patent or grant purported to have been given or granted by the United States of America to one William Banning, December 30, 1881, recorded in Vol. 3, page 185, records of the United States General Land Office, and recorded in Book 3 of Patents, at page 73, records of said County of Los Angeles; that said lands at the time of the issuance of said pretended patent or grant were not and no part thereof was public property of the United States, but, on the contrary said lands were at the time of the issuance of said pretended patent or grant owned and held by said State of California by virtue of its sovereignty, and said lands have not and no part thereof has been public property of the United States at any time since the issuance of said pretended patent or grant, and the United States has not had at any time since September 9, 1850, jurisdiction to patent or grant or transfer said lands to said William Banning or to any one else, and its said attempted patent or grant or conveyance of said lands or any part

thereof was inoperative and void and conveyed no title whatsoever; and that the claims of said defendants and of each of them to said lands or to any part thereof are, and each of them is, wrongful, invalid, and without right.

WHEREFORE, this plaintiff prays that said defendants, and each of them, be required to set forth the exact nature of their claims; that the title of plaintiff, The City of Los Angeles, a municipal corporation, to said lands and every part thereof be adjudged and decreed to be valid; that the claims of said defendants, and of each of them, to said lands or to any part thereof be adjudged and decreed to be unlawful, invalid, and without any right whatsoever; that plaintiff be allowed costs of this action; and that plaintiff be decreed such other and further relief as shall seem meet and just.

JESS E. STEPHENS,
Jess E. Stephens
City Attorney,

CLYDE M. LEACH,
Clyde M. Leach
Assistant City Attorney,

LUCIUS P GREEN
Lucius P. Green,
Assistant City Attorney,

JOSEPH T. WATSON
Joseph T. Watson,
Deputy City Attorney,
Attorneys for Plaintiff.

Verified.

[Endorsed]; Filed 1929 Jun. 28 P. M. 2 56 L. E. Lampton County Clerk, By W. D. Buckey, Deputy

[TITLE OF COURT AND CAUSE.]

## PETITION FOR REMOVAL TO FEDERAL COURT.

To the Honorable, the Superior Court of the State of California, in and for the County of Los Angeles:

Now come the defendants Borax Consolidated Limited, a corporation, and Pacific Coast Borax Company, a Nevada corporation, and file this their petition for the removal of this cause from the aforesaid Superior Court, in which it is now pending, to the District Court of the United States, in and for the Southern District of California, Central Division, held at the City of Los Angeles in the said district and state. In support of said application, petitioners respectfully show as follows:

I.

That this cause was filed in the above named court on the 28th day of June, 1929, and summons and complaint were served upon each of the above named petitioners in the County of Los Angeles, State of California, on the 3rd day of July, 1929; that the time to plead, answer or demur to the said complaint has not expired under the laws of this state in such cases made and provided.

II.

That this suit is one of a civil nature in equity, of which the district courts of the United States have original jurisdiction; that it is an action wherein plaintiff claims that the lands described in the complaint are tide lands belonging to the City of Los Angeles, to which each of the defendants is alleged to make an adverse claim,

which said claim is in each instance alleged to be invalid; that the action is one to quiet the title of the plaintiff to each parcel of land described in the complaint against the claims of each of the defendants herein, the said lands so described being the greater portion of Mormon Island, situated in the Inner Bay of San Pedro; that the cause has arisen under the laws of the United States and necessarily involves the construction of the said laws and the validity of acts done pursuant thereto; that the complaint presents separable causes against each of the defendants and is as to petitioners herein an action involving diversity of citizenship with respect to the said separable cause or causes against said petitioners; according to information and belief, that the other defendants herein, who are citizens and residents of the State of California, have been joined as defendants for the sole purpose of defeating a removal of this cause to the Federal Court.

III.

That the matter in dispute exceeds the sum of $3,000.00, exclusive of interest and costs, to-wit, the lands belonging to defendant Borax Consolidated Limited; which are occupied by defendant Pacific Coast Borax Company, a Nevada corporation, and which are described in the complaint herein, are of value in excess of $500,000.00.

IV.

That at the time of commencement of this action, and at all times since, plaintiff was, and now is, a municipal corporation organized under the laws of the State of California, located and situated within the County of Los Angeles, State of California, and said plaintiff was at all of said times, and is now, a citizen and resident of

the State of California and the County of Los Angeles in said state.

That at the time of the commencement of this action, and at all times since, defendant Borax Consolidated Limited was, and now is, a corporation duly organized and existing under and by virtue of the laws of the Kingdom of Great Britain, having its principal place of business in England, and that the said defendant was at all of said times, and is now, a citizen and resident of the City and County of London, England, in the said Kingdom of Great Britain.

That at the time of the commencement of this action, and at all times since, the defendant designated herein as Pacific Coast Borax Company, a Nevada corporation, being one of the petitioners herein, was, and now is, a corporation duly organized and existing under and by virtue of the laws of the State of Nevada, having its principal place of business at Reno, in the County of Washoe, State of Nevada, and that the said defendant was at all times, and is now, a citizen and resident of the State of Nevada and County of Washoe in said state.

That the defendants designated herein as Paicific Coast Borax Company, a California corporation, William Banning, William P. Banning, Katharine Stewart Banning, Joseph B. Banning, Jr., Katharine Banning Graves, Banning Company, a corporation, and John C. Macfarland, are and each of them is a citizen and resident of the State of California: that said defendants have been, as hereinbefore and hereinafter set forth, joined herein for the purpose of defeating the jurisdiction of this court.

V.

That the complaint herein has included in a single description in Paragraph XII, two separate and distinct parcels of real property, which were at the commencement of this action owned separately and occupied and used as separate and distinct parcels of land by different owners; that said description in Paragraph XII includes a parcel of land which is owned by defendant Borax Consolidated Limited, and which is particularly described as follows, to-wit:

"Part of Lot One (1), Section 8, Township 5 South Range 13 West, S. B. B. & M., commonly known as 'Mormon Island,' described as follows:

"Beginning at a point distant North 5° 08' East 1034.30 feet and North 15° 17' 30" West 312.68 feet from Station 1 of the Government Survey of said Lot 1; thence North 15° 17' 30" West 485.52 feet; thence North 3° 45' West 285.98 feet to the Northerly line of said Island, thence along the Northerly and Easterly lines of said Island North 71° 15' East 64.29 feet to an angle point in said line; thence South 57° 58' 20" East 429.36 feet to an angle point in said line; thence South 16° 14' 35" East 190.19 feet to an angle point in said line; thence South 60° 13' 20" East 264.18 feet to an angle point in said line; thence South 22° 14' 15" East 207.43 feet to an angle point in said line; thence South 30° 12' 25" West 177.90 feet to a point in said line distant North 30° 12' 25" East 416.39 feet from an angle point in said line; thence

leaving said Easterly line North 78° 23′ West 561.14 feet to the place of beginning.

"EXCEPTING therefrom that part lying Westerly of the Westerly line of said Lot 1 as patented by the United States to William Banning by patent recorded in Book 3, page 73, of Patents, in the office of the County Recorder of said County."

That said description in Paragraph XII of said complaint includes another and separate parcel, which is described as follows, to-wit:

"Beginning at Station Four Sixty (460) of the United States Harbor lines as established by the Secretary of War July 29, 1908; thence South 15° 17′ 30″ East 88.52 feet to a point on the meander line of the Survey of Mormon Island by W. H. Norway, Deputy Surveyor, under his contract with Theo. Wagner, United States Surveyor General of California, bearing date of March 10, 1880; commenced May 22, 1880, and completed May 24, 1880; thence Northerly along the meander line of said Norway Survey, North 19° 45′ West 213.99 feet, to meander corner No. 5 of said Norway Survey; thence Northerly along the meander line of said Norway Survey, North 1° 00′ West 158.25 feet, to meander corner No. 6 of said Norway Survey; thence Northeasterly along the meander line of said Norway Survey, North 71° 15′ East 34.78 feet to a point on the United States Pierhead Line as established by the Secretary of War July 29, 1908; thence Southerly along said Pierhead Line South 3° 45′ East 285.98 feet, to the point of beginning,"

and which was at the commencement of this action owned by defendants Katharine Stewart Banning, Joseph B. Ban-

ning, Jr., Katharine Banning Graves and William P. Banning, as devisees of Joseph B. Banning, deceased.

That defendant Pacific Coast Borax Company, a Nevada corporation, occupies the said parcel of land belonging to defendant Borax Consolidated Limited, and first hereinabove described, its occupancy being that of agent for aforesaid Borax Consolidated Limited; that the ownership of said parcel by the last named defendant is an absolute fee; that it is not owned jointly, or in common with any of the other defendants herein nor with any other person, firm or corporation; that its said ownership, and the nature thereof, is a matter of public record in the office of the County Recorder of the County of Los Angeles, State of California; that none of the defendants herein other than these petitioners is in possession of the whole or any portion of the said parcel belonging to the said Borax Consolidated Limited; that none of said defendants appears of record or otherwise to have any title therein or thereto or any lien thereon or claim against the same, and in fact none of the defendants herein other than these petitioners has or makes, or at any time subsequent to the conveyance of said premises to Borax Consolidated Limited, which occurred on April 24, 1923, has any of said defendants had or made, any claim or right, title or interest in or to or lien upon or claim against said parcel of property or any portion thereof, or any right to the possession of the same or any part thereof. That the defendant designated as Pacific Coast Borax Company, a California corporation, is not actively engaged in business; that it is in fact dormant; that it is and at all times has been controlled by interests entirely separate from the petitioners herein and at all times when engaged

in business has been a competitive company, having no relation to petitioners or any of their property whatever; and that the said defendant has never claimed, and does not now claim, any right, title or interest in or to, or lien or claim against, the said property of defendant Borax Consolidated Limited, above described.

That the parcel of land which is hereinabove described and alleged to belong to the devisees of Joseph B. Banning, deceased, lies to the west of the said land of Borax Consolidated Limited, is now covered with deep water and now constitutes a part of the navigable channel of the Harbor of San Pedro; that it lies within the harbor lines of San Pedro Harbor as established by the Secretary of War on July 29, 1908; that the United States pierhead line as established on said date constitutes the boundary line between the said two parcels of property, to-wit; the westerly boundary line of the property of Borax Consolidated Limited and the easterly boundary line of the said parcel belonging to the devisees of Joseph B. Banning, deceased; that said last mentioned parcel was included as a part of Mormon Island in the survey of W. H. Norway, to which reference is made in Paragraph XII of the complaint, but was excluded from the description when conveyance was made to Borax Consolidated Limited; that the title of said defendant to its said parcel of real property and the chain of title thereto appears and is readily deducible from the public records in the said office of the County Recorder of Los Angeles County, California; that the title of the said devisees of Joseph B. Banning in and to the other parcel lying westerly of or inside of the said harbor line is likewise a matter of public record in said recorder's office, and the chain of

title thereto and the present state of title readily deducible from an examination of the public records.

Another action was, simultaneously with the filing of this complaint, commenced by the City of Los Angeles against all of the defendants herein other than these petitioners and Pacific Coast Borax Company, a California corporation, which said action involves title to the south end of the said Mormon Island and claims the greater portion of the same to be tide land to which the defendants in said action are alleged to have no title; that said action is numbered 282273 on the records of this court; that the descriptions contained in the complaint at bar and the complaint in said action are minute and detailed engineer's descriptions; that the City of Los Angeles is the owner of the central portion of Mormon Island, being the parcel of land which lies between the above described property of Borax Consolidated Limited and the property described in the said Suit No. 282273. Said intervening parcel was acquired by the deed from Hancock Banning and wife, which is mentioned in the complaint herein. That the said City, its agents, servants and attorneys, is and are and were at the time of commencement of this action thoroughly familiar with the boundaries of the respective parcels of property, to which reference is above made, and the claims of the respective defendants therein and thereto and the fact that the claims of these petitioners and of said devisees of Joseph B. Banning are not overlapping or conflicting, but relate to entirely separate and distinct parcels of real property.

Petitioners further allege, according to information and belief, that the said Pacific Coast Borax Company, a California corporation, Banning Company, a corporation,

William Banning, William P. Banning, Katharine Stewart Banning, Joseph B. Banning, Jr., Katharine Banning Graves and John C. Macfarland, have been intentionally joined as defendants herein for the sole purpose of defeating the jurisdiction of the Federal Court and preventing a removal of this cause to said court.

VI

This action has arisen under the laws of the United States. The complaint presents the claim that the land therein described, although included in the patent from United States Government to William Banning, to which reference is made in the complaint, was not public land of the United States at the time of said grant or at the time of admission of the State of California to the Union. Said contention necessarily involves the effect of the Act of Congress which admitted the State of California to the Union, being an act entitled: "An Act for the Admission of the State of California into the Union," which was passed by the Congress of the United States, was approved on September 9, 1850, and is found at page 452 of Volume 9, United States Statutes at Large, and involves particularly the construction and effect of Section 3 of said Act; said contentions of plaintiff also necessarily involve the effect of the laws under which the Norway survey was made, to which reference is made in said complaint, which is the survey upon which the said patent to William Banning was issued and which is incorporated therein by reference; it also involves the effect of the said survey and the meaning and effect of the statutes under which the said patent was issued and the acts of the officials of the Land Department antecedent to and

involved in the issuance of said patent; said contention of plaintiff necessarily raises the question of whether the lands described in the complaint passed to the State of California by virtue of the Act of Admission or to the predecessor in interest of the defendant Borax Consolidated Limited by virtue of the Public Land Laws of the United States and the issuance of the patent thereunder.

VII.

Your petitioners herewith file a good and sufficient bond under the statute in such cases made and provided, conditioned as the law directs, that they will within thirty days from the filing of the petition for removal file a certified copy of the record of the case in the District Court of the United States, for the Southern District of California, Central Division, and will be liable for the payment of all costs which may be awarded by said court if said District Court shall determine that this suit was improperly or wrongfully removed thereto.

Your petitioners therefore pray the Court that it proceed no further herein except to order the removal, accept the bond herewith presented, and direct a transcript of the record to be made and certified as provided by law.

Newlin & Ashburn
Frank R. Wehe
Attorneys for Petitioners.

Verified.

FIDELITY AND DEPOSIT COMPANY of Maryland
BALTIMORE

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA IN AND FOR THE COUNTY OF LOS ANGELES

THE CITY OF LOS ANGELES,
a municipal corporation,

Plaintiff,

vs.

BORAX CONSOLIDATED LIMITED, an English Corporation, and PACIFIC COAST BORAX COMPANY, a Nevada Corporation, et al.

Defendants.

KNOW ALL MEN BY THESE PRESENTS:

That the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation organized and existing under and by virtue of the laws of the State of Maryland, the party of the first part, is held and firmly bound unto THE CITY OF LOS ANGELES, a municipal corporation, the party of the second part, in the penal sum of ONE THOUSAND AND NO/100 ($1000.00) DOLLARS, gold coin of the United States of America, for the payment of which, well and truly to be made, the said FIDELITY AND DEPOSIT COMPANY OF MARY-

LAND binds itself, its successors, representatives and assigns by these presents.

NEVERTHELESS, upon these conditions: That whereas, the said Defendants, BORAX CONSOLIDATED LIMITED, an English Corporation, and defendant PACIFIC COAST BORAX COMPANY, a Nevada Corporation, have petitioned, or are about to petition the Superior Court of the State of California, in and for the County of Los Angeles, for the removal of a certain case therein pending, wherein the said party of the second part is Plaintiff, and the said BORAX CONSOLIDATED LIMITED, an English corporation, and said PACIFIC COAST BORAX COMPANY, a Nevada Corporation, et al are Defendants to the District Court of the United States, for the Southern *Division* of California, Central Division.

NOW, THEREFORE, if the said BORAX CONSOLIDATED LIMITED, an English Corporation, and said PACIFIC COAST BORAX COMPANY, a Nevada Corporation, shall enter in the said District Court of the United States, for the Southern District of California, Central Division, within thirty (30) days from the filing of said petition for Removal, a certified copy of the record in said suit, and shall well and truly pay all costs that may be awarded by the said District Court of the United States, for the Southern District of California, Central Division, if such Court shall hold that such suit was wrongfully or improperly removed thereto, then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF the said FIDELITY AND DEPOSIT COMPANY OF MARYLAND has hereunto affixed its corporate name and seal this ninth day of July, A. D. 1929.

FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By C. K. Bennett
Attorney-in-Fact

Seal Attest L. C. Ellis
Agent

STATE OF CALIFORNIA )
) ss
City and County of San Francisco )

On this NINTH day of JULY, A. D., 1929, before me, Amy B. Townsend, a Notary Public in and for the City and County of San Francisco, residing therein, duly commissioned and sworn, personally appeared C. K. BENNETT, Attorney-in-Fact, and L. C. ELLIS, Agent, of the Fidelity and Deposit Company of Maryland, a corporation, known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same, and also known to me to be the persons whose names are subscribed to the within instrument as the Attorney-in-Fact and Agent respectively of said corporation, and they, and each of them, acknowledged to me that they subscribed the name of said Fidelity and Deposit Company of Maryland thereto as principal and their own names as Attorney-in-Fact and Agent respectively.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the City and County of San Francisco the day and year first above written.

Seal Amy B. Townsend

Notary Public in and for the City and County of San Francisco, State of California.

My Commission expires October 29, 1930.

The premium charged for this bond is $10.00 Dollars per annum.

[Endorsed]: Received copy of the within Notice at 9:36 A. M. this 11th day of July 1929 Erwin P. Werner, City Attorney By R. S. McLaughlin, Deputy Attorneys for Plaintiff. Filed Jul. 11, 1929. L. E. Lampton, County Clerk, By Roy Goff Deputy.

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[TITLE OF COURT AND CAUSE.]

## ORDER OF REMOVAL

This cause coming on for hearing in Department 7 of the above entitled court this 11th day of July, 1929, befort the Honorable Marshall F. McComb, judge presiding, upon petition of the defendants Borax Consolidated Limited, a corporation, and Pacific Coast Borax Company, a Nevada corporation, for an order transferring this cause to the United States District Court for the Southern

District of California, Central Division, and it appearing to the court that said defendants have filed their petition for such removal in due form of law, and that the said defendants have filed their bond duly conditioned with good and sufficient surety as provided by law, and that said defendants have given plaintiff due and legal notice thereof, and it appearing to the court that this is a proper cause for removal to said District Court:

NOW, THEREFORE, said petition and bond are hereby accepted, said bond is hereby approved, and it is hereby ordered and adjudged that this cause be, and it hereby is, removed to the United States District Court for the Southern District of California, Central Division, and the Clerk of this court is hereby directed to make up the record in said cause for transmission to said court forthwith.

Dated: this 11th day of July, 1929.

Marshall F. McComb

Judge.

OK

R. G.

[Endorsed]: Filed Jul. 12, 1929. L. E. Lampton Clerk, By T. C. Hutton, Deputy.

[Endorsed]: CERTIFIED COPY OF RECORD. Filed Aug. 7, 1929 R. S. Zimmerman, Clerk By Edmund L. Smith, Deputy Clerk.

[TITLE OF COURT AND CAUSE.]

## MOTION OF PLAINTIFF TO REMAND TO STATE COURT.

Comes now the plaintiff, the City of Los Angeles, a municipal corporation, by its attorneys, Erwin P. Werner, City Attorney, Clyde M. Leach, Assistant City Attorney, and Joseph T. Watson, Deputy City Attorney, appearing specially for the purpose of this motion only and not otherwise, saving and reserving all objections which it has to the manifold imperfections in the manner and method of the removal or attempted removal by petitioning defendants, Borax Consolidated Limited, an English corporation, and Pacific Coast Borax Company, a Nevada Corporation, of this cause from the Superior Court of the State of California in and for the County of Los Angeles, and expressly denying that this honorable court has jurisdiction of this cause or of the plaintiff herein, respectfully moves this honorable court to decide that the cause has not been removed into this honorable court, and respectfully moves this honorable court to proceed no further herein except to remand this cause to the court from which it was removed.

This motion is based upon all the papers, files, and records in this cause; and is made for the following reasons, and upon the following grounds, to-wit:

First. Because notice, petition, and bond for removal in accordance with the statutes of the United States in this behalf provided have not been filed in this cause;

Second. Because the record in this cause does not present a case removable to this court under the statutes governing such cases;

Third. Because the record in this cause does not present a question arising under the Constitution or laws of the United States, or treaties made under their authority, of which this court is given original jurisdiction.

Fourth. Because the record in this cause presents the question of diverse citizenship, but does not present a separable controversy between defendants of diverse citizenship, and all the defendants in the cause, and those defendants who have been served with process, do not join in the petition and bond for removal, contrary to the statutes governing such cases;

Fifth. Because the record in this cause discloses that no notice, written or otherwise, was given plaintiff that said petitioning defendants would apply to said State court to accept the petition and bond for removal, and would apply to said State court for an order of removal, prior to filing said petition and bond for removal or at all, contrary to the statutes governing such cases;

Sixth. Because the petition for removal does not state facts sufficient to entitle petitioning defendants to have this cause removed from said State court to this court.

Seventh. Because of other reasons and grounds apparent upon the face of the record in this cause and to be assigned in argument.

WHEREFORE, plaintiff prays that this honorable court proceed no further in this cause except to remand it to the Superior Court of the State of California in and for the County of Los Angeles from which it was removed, there to be proceeded with according to the practice there governing such cases.

Dated Oct 4 1929.

Erwin P. Werner
ERWIN P. WERNER
City Attorney,

Clyde M. Leach
CLYDE M. LEACH
Assistant City Attorney

Joseph T. Watson
Joseph T. Watson
Deputy City Attorney.

Attorneys for Plaintiff
specially appearing.

[Endorsed]: Received copy of the within Motion and Brief of Points and Authorities this 8th day of October, 1929. Newlin & Ashburn, W. A. Ashburn, attorneys for defendants Borax Consolidated Limited, Pacific Coast Borax Company, a Nevada Corporation. Filed Oct. 8, 1929 R. S. Zimmerman, R. S. Zimmerman, Clerk.

At a stated term, to wit, The September Term, A. D. 1929, of the District Court of the United States of America, within and for the Central Division of the Southern District of California, held at the court room thereof, in the City of Los Angeles on Wednesday, the 29th day of January in the year of our Lord one thousand nine hundred and thirty;

Present: The Honorable WM. P. JAMES, District Judge.

| | | |
|---|---|---|
| THE CITY OF LOS ANGELES, a municipal corporation, | ) | |
| vs. | ) | Q-12-J. Equity. |
| BORAX CONSOLIDATED LIMITED, an English corporation, et al. | ) | |

The motion of the plaintiff, as heretofore argued and presented, to remand this cause to the Superior Court of the State of California in and for Los Angeles County, is denied. An exception is noted in favor of the plaintiff.

[TITLE OF COURT AND CAUSE.]

ANSWER OF DEFENDANTS BORAX CONSOLIDATED, LIMITED, a corporation, and PACIFIC COAST BORAX COMPANY, A Nevada Corporation.

Come now the defendants, Borax Consolidated Limited, a corporation, and Pacific Coast Borax Company, a Nevada corporation, and severing from their co-defendants herein, for answer to the Bill of Complaint herein, deny and allege as follows:

I.

Defendants deny that the defendant designated as "Pacific Coast Borax Company, a California corporation" is a corporation or that it is organized or existing under or by virtue of the laws of the State of California or of any other state; admit that said defendant was formerly a California corporation and allege that said defendant, pursuant to a proceeding duly had in the Superior Court of the State of California, in and for the City and County of San Francisco, was voluntarily dissolved by decree of said Court, entered on the 26th day of August, 1929; that said proceeding was commenced prior to the filing of this action, to wit, on the 13th day of June, 1929.

II.

Defendants deny that the defendant designated as "Banning Company, a corporation", is, or at the time of the commencement of this action was, a corporation or that

it is, or at said time was, organized or existing under or by virtue of the laws of the State of California or of any other state, but, on the contrary, allege that the said corporation (being the "Banning Company" which at one time owned the lands involved in this action) had been dissolved many years prior to the commencement of this action.

III.

Defendants deny that defendant John C. Macfarland is, or was at the time of the commencement of this action, executor of the Last Will and Testament of Hancock Banning, deceased, or that he is, or was at said time, qualified or acting executor of the Will of the said decedent.

IV.

Defendants deny that, at all or any of the times mentioned in the said Bill of Complaint, the lands or any of the lands described, or purporting to be described, in Paragraph XII thereof were, or that any portion of the same was, or that the same now are, or that any portion thereof now is, tide lands and submerged lands or tideland or submerged land, or that the same or any portion thereof were at all or any of said times, or now are or is, situated below the line of mean high tide of the Pacific Ocean, or situated within and below, or within or below, the line of mean high tide of the harbor, estuary, bay or inlet which is designated in the Bill as being formerly known as Wilmington Bay or as Wilmington Harbor or as the Inner Bay of San Pedro and now known as Los Angeles Harbor; deny that the said lands or any portion of the lands described, or purporting to be de-

scribed, in Paragraph XII of the said Bill of Complaint were or was on September 9th, 1850, or on May 1st, 1911, or at all or any times or time during the period from September 9th, 1850 to May 1st, 1911, or at any other time, owned and held, or owned or held, by said State of California, either by virtue of its sovereignty or by virtue of any other right or title, or at all; deny that the said lands or any part or portion thereof were or was on September 9th, 1850, or on May 1st, 1911, or at all or any times or time since said or either of said dates, or that the same or any portion thereof now are or is tidelands and submerged lands or tideland or submerged land, either filled or unfilled, or that the same was at all or any of the said times or now is or that any portion thereof was or is owned by plaintiff, the City of Los Angeles, either by virtue of grant from the State of California or by virtue of any other right or title or at all, or that the same was or is owned subject only to trust for the uses and purposes or upon the express conditions mentioned in said Bill of Complaint or upon any trust or for any uses or purposes or upon any conditions whatsoever, or that the City of Los Angeles ever had or now has any right, title or interest in or to said or any portion of the said lands.

V.

Defendants deny that the description contained in Paragraph XII of the Bill of Complaint is a true or correct description of tidelands and submerged lands or of tideland or submerged land; deny that all or any portion of the lands described, or purporting to be described, in said Paragraph of said Bill are or is tidelands and submerged

lands or tideland or submerged land; deny that there is or was any official or public or accurate or reliable or authentic survey known or described as "survey of a portion of Mormon Island and adjacent waters, San Pedro Inner Harbor, by F. G. Desserey, C. E. July 1909" or any official, or public, or accurate, or reliable or authentic survey of a portion of Mormon Island and/or adjacent waters, and/or of San Pedro Inner Harbor which was made by F. G. Desserey, C. E., under date of July, 1909, or any other date or at all, or that the 5.1 foot contour line of the said purported survey was or is an official or public or accurate or reliable or authentic or ascertainable contour line, or that the said survey or the said contour line was or is an official or public or accurate or authentic or reliable or ascertainable monument or boundary or other basis for legal description of real property; deny that that portion of the description contained in said paragraph XII which refers to the so-called Desserey survey is a legal, or definite or ascertainable or any description of any lands whatever, or that the description contained in said Paragraph XII can be so applied to any land as to identify it, or that that portion of paragraph XII which begins at line 20 of page 6 and ends at line 5, page 7, of the Bill of Complaint describes in any ascertainable manner any parcel of land or boundary of any parcel of land whatever.

VI.

Defendants admit that defendant Borax Consolidated Limited, a corporation, and defendant Pacific Coast Borax Company, a Nevada corporation, claim some estate and interest in and to the lands and the whole of the lands

described, or purporting to be described, in Paragraph XII of the Bill of Complaint, but deny that the claims of the said defendants or of either of them are or is wrongful, or that said defendants have not, or that either of them has not, an estate or interest in said lands or in any part thereof, and, on the contrary, allege that defendant Borax Consolidated Limited is the absolute owner in fee of the whole of said premises described, or purporting to be described, in Paragraph XII of the Bill of Complaint; that it acquired title thereto, by mesne conveyances, from William Banning; that on and at all times prior to the 30th day of December, 1881, said premises were public land belonging to the United States of America; that on said date, pursuant to proceedings duly had under the pre-emption laws of the United States of America, said United States of America duly granted and patented to the said William Banning the whole of Mormon Island in said Inner Bay of San Pedro, which said Island is legally and correctly described as:

Lot One (1) of Section Eight (8) in Township Five (5) South of Range Thirteen (13) West, San Bernardino Meridian;

that said grant was made by a certain instrument, copy of which is hereunto annexed, marked Exhibit "A" and made a part hereof, with the same force and effect as if herein set forth in full; that said description contained in said Patent includes all lands described, or purporting to be described, in Paragraph XII of the Bill herein, together with other lands; that the said Patent was, on December 30th, 1881, duly recorded in Vol. 3 at page 185 of Records of the United States General Land Office

and on February 10th, 1882, duly recorded in Book 3 of Patents at page 73 in the records of the County Recorder of the County of Los Angeles, State of California; that defendant Pacific Coast Borax Company is, as the agent of defendant Borax Consolidated Limited, in possession of that portion of the said Lot 1, which is hereinafter alleged to belong to Borax Consolidated Limited; said Pacific Coast Borax Company claims solely and only under the title of the said Borax Consolidated Limited and by virtue of its occupancy thereof as the agent of the said last named corporation.

VII.

Defendants deny that all or any of the defendants named in Paragraph XIII of the Bill of Complaint (other than these answering defendants) wrongfully or at all claim, or have at any time, since May 3rd, 1923, claimed, any estate or interest in or to the lands or any portion of the lands described, or purporting to be described, in Paragraph XII of the Bill, (except that portion hereinafter designated as "quitclaim parcel"), or that such alleged claim or claims is or are adverse to plaintiff; admit and allege that none of the said defendants, other than these answering defendants, has any estate or interest in the said lands or any part thereof. In that connection, these defendants further allege that defendant Borax Consolidated Limited is, and prior to and at the time of the commencement of this action was, through certain mesne conveyances, the successor in interest in and to any and all title of defendants William Banning, William P. Banning, Katharine Stewart Banning, Joseph B. Banning, Jr., Katharine Banning Graves, Banning

Company, a corporation, and Hancock Banning, deceased, in and to each and every part and parcel of the premises described, or purporting to be described, in the Bill of Complaint herein, other than said "quitclaim parcel", and in and to that certain parcel of said Lot 1 of Section 8 in Township 5 South, Range 13 West, San Bernardino Meridian, which is particularly described as follows, to wit:

"Part of Lot One (1), Section 8, Township 5 South, Range 13 West, S. B. B. & M., commonly known as 'Morman Island', described as follows:

Beginning at a point distant North 5° 08′ East 1034 feet and North 15° 17′ 30″ West 312.68 feet from Station 1 of the Government Survey of said Lot 1; thence North 15° 17′ 30″ West 485.52 feet; thence North 3° 45′ West 285.98 feet to the Northerly line of said Island, thence along the Northerly and Easterly lines of said Island North 71° 15′ East 64.29 feet to an angle point in said line; thence South 57° 58′ 20″ East 429.36 feet to an angle point in said line; thence South 16° 14′ 35″ East 190.19 feet to an angle point in said line; thence South 60° 13′ 20″ East 264.18 feet to an angle point in said line; thence South 22′ 14′ 15″ East 207.43 feet to an angle point in said line; thence South 30° 12′ 25″ West 177.90 feet to a point in said line distant North 30° 12′ 25″ East 416.39 feet from an angle point in said line; thence leaving said Easterly line North 78° 23′ West 561.14 feet to the place of beginning.

EXCEPTING therefrom that part lying Westerly of the Westerly line of said Lot 1 as patented by the United States to William Banning by patent recorded in Book

3, page 73, of Patents, in the office of the County Recorder of said County."

That said defendant Borax Consolidated Limited is now and has been the actual and record owner at all times since May 3, 1923 of that portion of the said Lot 1 last described; that said parcel includes the whole of the premises described, or purporting to be described, in Paragraph XII of the said Bill of Complaint, except that portion which is hereinbefore designated "quitclaim parcel" and which is particularly described as follows, to wit:

"Beginning at Station Four Sixty (460) of the United States Harbor lines as established by the Secretary of War July 29, 1908; thence south 15° 17' 30" East 88.52 feet to a point on the meander line of the Survey of Mormon Island by W. H. Norway, Deputy Surveyor, under his contract with Theo. Wagner, United States Surveyor General of California, bearing date of March 10, 1880, commenced May 22, 1880, and completed May 24, 1880; thence Northerly along the meander line of said Norway Survey, North 19° 45' west 213.99 feet, to meander corner No. 5 of said Norway Survey; thence Northerly along the meander line of said Norway Survey, North 1° 00' West 158.25 feet, to meander corner No. 6 of said Norway Survey; thence Northeasterly along the meander line of said Norway Survey, North 71° 15' East 34.78 feet to a point on the United States Pierhead Line as established by the Secretary of War July 29, 1908; thence Southerly along said Pierhead Line, South 3° 45' East 285.98 feet, to the point of beginning." That the portion of said property last hereinbefore de-

scribed, (elsewhere designated "quitclaim parcel") is and was, at all times since May 3, 1923, and for many years prior to said date had been, covered with deep water and has constituted and now constitutes a part of the navigable channel of the Harbor of San Pedro and lies within the harbor lines of San Pedro Harbor, as established by the Secretary of War on July 29th, 1908; that the pierhead line so established constitutes the boundary line between the lands owned by the defendant Borax Consolidated Limited at the time of the commencement of this action, and the parcel last hereinbefore described; that the defendants William P. Banning, Katherine Stewart Banning, Joseph B. Banning, Jr., Katherine Banning Graves (who, as devisees of Joseph B. Banning, deceased, were the record owners of same), together with John C. Macfarland, as executor of the Last Will and Testament of Hancock Banning, deceased, have, since the commencement of this action, executed and delivered to the said defendant Borax Consolidated Limited a quitclaim deed conveying to the said corporation any right, title or interest which they, or any of them, had in or to the said last mentioned parcel, and said defendant Borax Consolidated Limited is now the owner of said parcel of land; copy of said quitclaim deed is hereto annexed, marked Exhibit "C" and made a part hereof; that the said quitclaim deed was, on the 13th day of September, 1929, duly recorded in the office of the County Recorder of the County of Los Angeles, State of California.

Defendants further allege that defendants Pacific Coast Borax Company, a California corporation, William Banning, John Doe Corporation One, a corporation, John

Doe Corporation Two, a corporation, John Doe One, John Doe Two, John Doe Three, John Doe Four, John Doe Five, Jane Doe One, Jane Doe Two, Jane Doe Three, Jane Doe Four and Jane Doe Five have not, nor has any of them, at any time subsequent to May 3, 1923, had any actual or apparent claim, title or interest upon, in or to the whole or any portion of the lands described, or purporting to be described, in the Bill of Complaint herein, nor have all or any of them at any of said times appeared of record or claimed to be the owner or holder of any claim, right, title or interest in or to said or any portion of the said lands, and that the said defendants, and each of them, as well as the defendants William P. Banning, Katherine Stewart Banning, Joseph B. Banning, Jr., Katherine Banning Graves and John C. Macfarland, as executor of the Last Will and Testament of Hancock Banning, deceased, have been fraudulently joined as parties defendant for the sole purpose of defeating the jurisdiction of this court.

VIII.

Defendants deny that each or any or all of the defendants assert claim to some or any estate or interest in or to the said lands or some part thereof, either under any common source of title or alleged common source of title, or that all or any of them, except these answering defendants, claim any right, title or interest therein or thereto under the Patent or grant of December 30, 1881, which is mentioned in Paragraph XIII of the Bill of Complaint. Admit that these answering defendants claim under the patent or grant which is mentioned in Para- XIII of the Bill of Complaint. Deny that the same was

a pretended or purported Patent or pretended or purported grant, or that it only purported to have been given or granted, but, on the contrary, allege that the said Patent is and at all times has been a valid Patent or grant duly made and issued by the United States of America pursuant to proceedings duly had under existing statutes enacted by the Congress of the United States. Deny that said lands or that any part thereof were or was not public property of the United States, or that they were not or any portion thereof was not such public property at the time of the issuance of the said patent; deny that said lands or any portion thereof were or was, either at the time of the issuance of the said Patent or at any other time, owned and held, or owned or held, by the State of California, either by virtue of its sovereignty or by virtue of any other right or title; admit that said lands have not and no portion thereof has been public property of the United States at any time since the issuance of the said Patent, and allege that, at all times since the issuance of said Patent, all of said lands have been the private property of defendant Borax Consolidated Limited and its predecessors in interest and to the exclusion of all claims of the State of California and City of Los Angeles, and each of them; deny that the United States had not jurisdiction to Patent or grant or transfer said lands or to so Patent or grant or transfer the same to the said William Banning or to anyone else or that it had no such jurisdiction at the time of making the said patent or at any time since September 9th, 1850, or that the said Patent or grant or conveyance or any part thereof was inoperative and void or inoperative or void or that the same conveyed no title whatsoever; deny that

the claims of these answering defendants, or either of them, are or is wrongful, invalid and without right or wrongful or invalid or without right.

FOR A FIRST SEPARATE DEFENSE AND BY WAY OF COUNTERCLAIM, ANSWERING DEFENDANTS ALLEGE:

I.

That in that certain Act of Congress, which was passed on the 9th day of September, 1850, entitled: "An Act for the Admission of the State of California into the Union", wherein and whereby the State of California was admitted into the Union as a state on ~~an equal~~ footing with the original states, it was provided in Section 3 as follows, to wit:

"And be it further enacted, That the said State of California is admitted into the Union upon the express condition that the people of said State, through their legislature or otherwise, shall never interfere with the primary disposal of the public lands within its limits, and shall pass no law and do no act whereby the title of the United States to, and the right to dispose of, the same shall be impaired or questioned."

That at said time, and at all times since, Mormon Island was and has been an island in the Inner Bay of San Pedro, in the State of California, having an area of more than 18 acres; that on said September 9th, 1850, said island belonged to the United States, constituted public land of the United States and was claimed as such by the United States; that the area and extent of the said public land was not officially determined until August

26th, 1880, at which time a certain survey thereof which had been previously made by one W. H. Norway, deputy surveyor for the United States, was duly approved and filed in the offices of the Surveyor General and the General Land Office in the Department of the Interior of the United States.

II.

That it was at all times the duty of the Commissioner of the General Land Office, in said Department of the Interior, and he was by statute vested with jurisdiction, to determine from time to time the location, quality, area and boundaries of the public lands of the United States, and to that end to cause the same to be surveyed and plats thereof made, approved and filed as public records of the United States; that it was a part of the duty of the said Commissioner of the General Land Office on the 10th day of March, 1880 and for a long time prior thereto and subsequent to said date, upon proper request and payment of statutory charges, to cause a survey to be made of the said Mormon Island for the purpose of determining how much, if any, of the land of the said island was public land subject to purchase under the pre-emption acts of the United States, the exact area thereof and the boundaries of same; that after and pursuant to request duly made and statutory charges duly paid, one Theodore Wagner, who was then United States Surveyor General for California, acting under special direction of the Commissioner of the General Land Office, did enter into a certain contract, bearing date March 10th, 1880, with one W. H. Norway, who was then deputy Surveyor for United States, wherein and whereby the said Norway was authorized and agreed

"in strict conformity with the printed manual of surveying instructions, issued by the General Land Office; which is hereby incorporated with, and made part of this contract, and with such special instructions as he (said Norway) may receive from the Surveyor General, in conformity therewith, will well, truly and faithfully run, measure and mark all lines necessary to survey and connect with the lines of the public surveys the tract of land in Township 5 South, Range 13 West, San Bernardino Meridian, known as Mormon Island, and supposed to be in the Northwest ¼ of Section 8 of said Township, and that he will complete these surveys in the manner aforesaid, and return the true and original field notes thereof to the office of the said Surveyor General." That the said Norway was specially instructed by the said Surveyor General

"to note the width and depth of the channels upon either side of the island, the heighth of the island above high water mark, and the area of the arable lands thereon";

that pursuant to the said contract and the said special instructions, the said Norway made a survey of said Mormon Island, beginning on the 22nd day of May, 1880 and did prepare and return to the said Surveyor General a certain map or plat thereof, together with field notes of the said survey; that in the said field notes it was stated by the said Norway that he had established certain meander corners Nos. 1 to 14, each corner being established at the line of ordinary high water and that he had meandered around the island at ordinary high water mark; that the said island contained 18.88 acres; that "Said Mormon Island is from three to five feet above

ordinary high tide and separated from Rattlesnake Island by a channel about 150 to 200 feet wide with an average depth of about 10 feet at the lowest tide, said Island on the other side is separated by the usual steamboat channel of depth sufficient for navigation at all stages of the tide. The area of available land is about 18 acres, as indicated in field notes of survey". That said field notes were duly approved and filed by said Surveyor General and a plat or map of the said Island, showing the location, area and boundaries of same, as surveyed by the said Norway, was duly prepared and transmitted to the United States Surveyor General and the Commissioner of the General Land Office and duly approved and filed on or about August 26th, 1880, as above alleged; that the said Mormon Island was officially designated as Lot One of Section 8 of Township 5 South, Range 13 West, San Bernardino Meridian; that no appeal from the action of the Commissioner of the General Land Office, in approving the said map or plat, or any other objection thereto was taken or made by the State of California, or the City of Los Angeles, or any other person whatsoever.

III.

That on the 10th day of December, 1880, one William Banning duly filed, pursuant to the Pre-emption Law of the United States then in force (Section 2262 of the Revised Statutes of the United States), his declaratory statement showing settlement on the said Lot One before survey thereof, to wit, on the 6th day of April, 1880; that pursuant to proceedings duly had under the said Pre-emption Act, the said William Banning made all necessary proof, paid all necessary moneys and became

entitled to and received a Patent to the said Lot One, which was duly issued by the President of the United States on the 30th day of December, 1881 and which conveyed to the said William Banning the said Lot One of Section 8, Township 5 South, Range 13 West, San Bernardino Meridian; that a copy of the said Patent is hereunto annexed, marked Exhibit "A" and made a part hereof with the same force and effect as if herein set forth in full; that said Patent was, on December 30th, 1881, duly recorded in Vol. 3 at page 185 of Records of the United States General Land Office and on February 10th, 1882 duly recorded in Book 3 of Patents at page 73 of the Records of the County Recorder of the County of Los Angeles, State of California; that the said Patent conveyed to the said William Banning the whole of the said Mormon Island, as surveyed by the said W. H. Norway, and in accordance with the above mentioned plat or map; that the boundaries of the said Lot One, as so conveyed, were the boundaries as shown on the said plat or map and as described in the said field notes of the said Norway; that included within the said Lot One, as so conveyed by the said Patent, are all of the lands described, or attempted to be described, in the plaintiff's Bill of Complaint herein.

That it was the duty of the Commissioner of the General Land Office, in acting upon the request for the said Survey of the said Mormon Island and upon the pre-emption claim of the said William Banning, to ascertain, and he was vested with jurisdiction to ascertain, the nature of the said land and the extent and boundaries thereof; that, before authorizing the issuance of said

Patent, and before the issuance thereof, said Commissioner, after investigation and while acting within his jurisdiction, determined and decided as a matter of fact that all of the land described in said Patent, to wit, the whole of said Lot One, was upland, that it constituted part of the public domain of the United States, that the boundaries of same were correctly described and delineated in said field notes of W. H. Norway and on said plat or map, and that the area of said upland was 18.88 acres.

IV.

That through certain mesne conveyances, defendant Borax Consolidated, Limited, on or about May 3, 1923, acquired all of the right, title and interest of the said William Banning in and to that portion of the lands described in the said Patent from the United States, which is particularly described as follows, to wit:

"Part of Lot One (1), Section 8, Township 5 South, Range 13 West, S. B. B. & M., commonly known as 'Mormon Island', described as follows:

Beginning at a point distant North 5° 08' East 1034.30 feet and North 15° 17' 30" West 312.68 feet from Station 1 of the Government Survey of said Lot 1; thence North 15° 17' 30" West 485.52 feet; thence North 3° 45' West 285.98 feet to the Northerly line of said Island, thence along the Northerly and Easterly lines of said Island North 71° 15' East 64.29 feet to an angle point in said line; thence South 57° 58' 20" East 429.36 feet to an angle point in said line; thence South 16° 14' 35" East 190.19 feet to an angle point in said line; thence South 60° 13' 20" East 264.18 feet to an angle point in said

line; thence South 22° 14′ 15″ East 207.43 feet to an angle point in said line; thence South 30° 12′ 25″ West 177.90 feet to a point in said line distant North 30° 12′ 25″ East 416.39 feet from an angle point in said line; thence leaving said Easterly line North 78° 23′ West 561.14 feet to the place of beginning.

EXCEPTING therefrom that part lying Westerly of the Westerly line of said Lot 1 as patented by the United States to William Banning by patent recorded in Book 3, page 73, of Patents, in the office of the County Recorder of said County."

That defendants William P. Banning, Katharine Stewart Banning, Joseph B. Banning, Jr., and Katharine Banning Graves (who as devisees of Joseph B. Banning, deceased, were the record owners of the portion of the said property described in Exhibit "C" hereto annexed and elsewhere designated as the "quitclaim parcel"), together with John C. Macfarland, as executor of the Last Will and Testament of Hancock Banning, deceased, have, since the commencement of this action, executed and delivered to the said defendant Borax Consolidated, Ltd. a quitclaim deed conveying to the said corporation any right, title or interest which they or any of them had in or to the said last mentioned parcel; that said quitclaim deed was, on the 13th day of September, 1929, duly recorded in the office of the County Recorder of the County of Los Angeles, State of California, and copy of same is hereto annexed as Exhibit "C" and incorporated herein by reference.

That defendant Borax Consolidated Limited is the owner and holder of all of that portion of said Lot One

of Section 8, Township 5 South, Range 13 West, San Bernardino Meridian hereinbefore described (including said "quitclaim parcel"), as shown by the said survey of the said W. H. Norway and the said plat above mentioned; said portion of said Lot One includes all of the lands described or attempted to be described in Paragraph XII of the Bill of Complaint herein. That defendant Pacific Coast Borax Company is in possession of the said portion of Lot One so conveyed to Borax Consolidated Limited as aforesaid and occupies and claims possession thereof solely and only under the title of the said Borax Consolidated Limited and as agent of the said last named corporation.

V.

That said defendant Borax Consolidated Limited is the owner in fee and through its agent, Pacific Coast Borax Company, a Nevada corporation, is in possession of all that real property which is particularly described in Exhibit "B" hereto attached, and is also the owner in fee of the parcel described in Exhibit "C" hereto annexed; that the plaintiff, City of Los Angeles, makes or asserts an adverse claim of title to the same or some portion thereof and claims and asserts that the portion thereof described, or attempted to be described, in Paragraph XII of the Bill of Complaint herein is tideland; that the said claim of the said City of Los Angeles is without right, and that defendant Borax Consolidated Limited is entitled to have its title quieted as against all claims and pretensions of the said City of Los Angeles and to have it adjudged that said defendant is the absolute owner in fee simple of all of the premises described in Exhibits "B" and "C" hereto attached.

FOR A SECOND SEPARATE DEFENSE AND BY WAY OF COUNTERCLAIM, ANSWERING DEFENDANTS ALLEGE:

I.

That prior to May 3, 1923, to wit, on or about December 29th, 1922, plaintiff, City of Los Angeles, purchased from Hancock Banning (who was successor in interest of William Banning, with respect to the parcel of land next hereinafter mentioned), at a price of more than Forty-nine Thousand Dollars ($49,000.00) per acre, a certain portion of the said Mormon Island, being a tract consisting of 5.19 acres, more or less, which tract adjoins on the South the lands described or purporting to be described in Paragraph XII of the Bill of Complaint herein, and likewise adjoins on the South all of the lands purchased and owned by the defendant Borax Consolidated Limited as hereinafter alleged; that said parcel of land so purchased by the plaintiff was, on or about said 29th day of December, 1922, conveyed by Hancock Banning and Anne Ophelia Banning, his wife, to the said City of Los Angeles by certain grant deed which is recorded in Book 1742 at page 132 of Official Records of Los Angeles County, California; that the said conveyance was made according to that certain official survey of W. H. Norway, to which reference is made in Paragraph II of the first separate defense and counterclaim herein contained (the allegations of which said Paragraph are incorporated herein by reference with the same force and effect as if herein set forth in full); that the description contained in the said deed is as follows, to wit:

That part of Lot One (1), Section Eight (8), Township Five (5) South, Range Thirteen (13) West, S. B. B. & M., commonly known as "Mormon Island" in the City of and County of Los Angeles, State of California, described as follows: Beginning at a point distant North Five Degrees (5°) Eight Minutes (8′) East, Six Hundred Eighty-nine and sixteen hundredths (689.16) feet from Station One (1) of the Government Survey of said Lot One (1), thence North Five Degrees (5°) Eight Minutes (8′) West, Three Hundred Forty-five and fourteen hundredths (345.14) feet; thence North Fifteen Degrees (15°) Seventeen Minutes (17′) Thirty Seconds (30″) West, Three Hundred Twelve and sixty-eight hundredths (312.68) feet; thence South Seventy-eight Degrees (78°) Twenty-three Minutes (23′) East, Five Hundred Sixty-one and fourteen hundredths (561.14) feet to a point on the Easterly line of said Island distant North Thirty Degrees (30°) Twelve Minutes (12′) Twenty-five seconds (25″) East, Four Hundred Sixteen and thirty-nine hundredths (416.39) feet from an angle point in said line; thence along said Easterly line South Thirty Degrees (30″) Twelve Minutes (12′) Twenty-five Seconds (25°) West, Four Hundred Sixteen and thirty-nine hundredths (416.39) feet to said angle point; thence still along said Easterly line South Seven Degrees (7°) East, Two Hundred Thirty-nine and sixty-three hundredths (239.63) feet; thence North Seventy-eight Degrees (78°) Twenty-three Minutes (23′) West, Three Hundred Twenty-four and forty-two hundreds (324.42) feet to the place of beginning. Except therefrom that part lying Westerly of the Westerly line of said Lot One (1) as patented by the United States to William Banning, which

patent is recorded in Book 3, page 73 of Patents, in the office of the County Recorder of said County.

That the said description embraces more than two acres of land which, as defendants are informed and believe, and therefore allege according to information and belief, are shown upon the so-called Desserey Survey (mentioned in the Bill of Complaint herein), to be below the line of ordinary high water and to constitute tidelands, and which, according to the present contentions of the City of Los Angeles, as set forth in its Bill of Complaint herein, belonged to the said City before payment of the said sum of more than Forty-nine Thousand Dollars ($49,000.00) an acre therefor.

II.

That defendant Borax Consolidated Limited, on and prior to May 3, 1923, knew of the making of the said purchase as hereinbefore alleged, believed the Title Insurance & Trust Company, a corporation, was owner of the parcel of land described in Exhibit "B", hereunto annexed, and so believing purchased from the said Title Insurance & Trust Company at a price of many thousand dollars per acre that portion of the said Mormon Island which is particularly described in grant deed from Title Insurance & Trust Company to Borax Consolidated Limited, dated April 24th, 1923 and recorded May 3, 1923, copy of which is hereunto annexed, marked Exhibit "B" with the same force and effect as if set forth in full. Said parcel contains land of an area in excess of seven acres. Said Title Insurance & Trust Company was, at the time of making said deed, the successor in interest, by virtue of certain mesne conveyances, in and to all of the

title of William Banning in and to the said portion of Mormon Island; that the said parcel so conveyed by Title Insurance & Trust Company to defendant Borax Consolidated Limited was a part of the upland which was conveyed to William Banning by that certain Patent dated December 30th, 1881, copy of which is hereunto annexed, marked Exhibit "A" and made a part hereof.

That defendant Borax Consolidated Limited at the time of purchasing the said parcel described in Exhibit "B" and at the time of accepting said deed, believed that the whole of the land therein described was upland and that none of it was tideland and defendant had no reason to believe that any portion thereof was tideland. According to information and belief that the City of Los Angeles, its Board of Harbor Commissioners and other officials knew, prior to the making of said purchase by said defendant Borax Consolidated Limited, of its said belief that the parcel about to be purchased consisted entirely of upland and that it was about to make said purchase in reliance upon said belief; but the said plaintiff, its Board of Harbor Commissioners and other officials made statements to defendant that said parcel was upland, and deliberately failed to inform said defendant of any claim on the part of the City of Los Angeles that any portion of the said parcel about to be purchased was not upland or constituted tideland, and, with knowledge of the said belief and intention of said defendant, knowingly stood by and permitted defendant to purchase said land in the belief that the whole thereof was upland and no portion of it tideland; that, in addition to said things above alleged, said plaintiff, (which was then and there actively engaged, directly through its Board of Harbor Commis-

sioners and indirectly through the Chamber of Commerce of the City of Los Angeles, in a campaign to induce industries to locate at the Harbor of Los Angeles), assisted in persuading and inducing defendant to purchase said land and locate its industry thereon.

III.

That said defendant and its agent, Pacific Coast Borax Company, a Nevada corporation, are engaged in manufacturing, packing and sale of borax, boric acid, soap and miscellaneous borate products: that immediately after the purchase of the said land from the said Title Insurance & Trust Company, defendants commenced and have since been continuously engaged in the construction, maintenance and repair of permanent and expensive improvements upon the said parcel of land so purchased; that said permanent improvements are located principally and almost wholly upon those portions of the land purchased by defendant which are attempted to be described in Paragraph XII of the Bill of Complaint herein and which are now claimed by the City of Los Angeles to be tideland; that said improvements consist, among others, of the following things: leveling ground for construction of factory, office and other buildings; dredging to a depth of 35 feet and maintaining a deep water area between the channel of Slip No. 1 and defendant's property on Mormon Island; placing adequate riprap to protect slope of dredge cut; building of bulkhead to hold land on water side; building of wharf 786 feet in length and 57,250 sq. ft. in area; building wharf transit shed; wharf office and wharf extension shed, with an area of 37,500 sq. ft. under cover for storage and handling goods in transit for

ocean movement; installing and maintaining 2,000 feet of industrial spur track, connecting with Harbor Belt Line Railroad; erecting modern borax refining plant of monolithic concrete construction, requiring the driving of over 3,000 large piles to insure adequate foundation, said building and columns being of sufficient strength and size to allow of ultimate construction of five stories, present structure being three stories in height, and ground area occupied being 77,616 sq. ft. or approximately 1.8 acres; erection of modern boiler house and power plant with boilers, stand-by steam turbine and machine shop; 150 foot concrete stack, and fuel storage, etc. That the amount expended for such permanent improvements, prior to October 1st, 1924, was in excess of $900,000.00; from October 1st, 1924, to October 1st, 1925, said defendant also expended for such permanent improvements an amount in excess of $14,000.00; for the year 1925-26, an amount in excess of $1,000.00; for the year 1926-27, an amount in excess of $5,000.00; for the year 1927-28, an amount in excess of $1,900.00 and for the year 1928-29, an amount in excess of $75,000.00. That in addition to the said permanent improvements, the said defendants have installed, maintained and renewed from time to time necessary machinery and equipment for the operation of said borax factory of an actual cost and value in excess of $100,000.00.

That prior to the making of each of the above mentioned permanent improvements, defendants were required by the Ordinances of the City of Los Angeles to procure, and procured, from the said City, a building permit for the construction of each of the said improvements; that the said building permits have been issued

at intervals over a period of time extending from March 15th, 1923, the date of the first permit, to July 10th, 1929, the date of the last permit; that the said City of Los Angeles has been informed in each instance and before the construction of said permanent improvements of the intention of the defendants to construct same on said land and of the estimated cost thereof; and not only has the said City issued its building permits therefor, but it has at no time, prior to the summer of 1929, made any claim whatsoever that any of the said improvements were or was situated upon or about to be situated upon land belonging to the City of Los Angeles or that any portion of the land so purchased and occupied by defendants was tideland or that the City of Los Angeles had any title or made any claim therein or thereto; that the City of Los Angeles has, during each fiscal year since the acquisition of the said land by defendant Borax Consolidated Limited, levied and assessed taxes upon the said parcel so conveyed to said defendant; that the same has been assessed as the property of answering defendants or one of them or of their predecessor in interest, Title Insurance & Trust Company, and it has been assessed as upland; the assessed valuations of the land, exclusive of improvements, have ranged from $116,100.00 to $141,100.00, which, according to well known practice of assessment of real property in the City and County of Los Angeles, is but 50% of the assessor's actual valuation of the land; that the said taxes so levied and assessed have been paid by defendant Borax Consolidated Limited and received by the said City of Los Angeles. That, at all times since December 30th, 1881 and particularly since May 3, 1923, said City of Los Angeles has re-

peatedly and continuously, in numerous and divers ways and forms, recognized and agreed that the boundaries of said Mormon Island, as delineated in said Norway field notes and plat, were and are the true and correct boundaries thereof.

IV.

That on or about the 28th day of March, 1928, the City of Los Angeles, acting through its Board of Harbor Commissioners, which was duly authorized to act in the premises, did seek and acquired from defendant Pacific Coast Borax Company, which was then and there acting for defendant Borax Consolidated Limited, and under authority so to do, a right of way for the construction and maintenance of oil pipe lines over and across the premises of said defendants, which are described in Exhibit "B", hereto annexed, and over and across the premises which are described, or attempted to be described, in Paragraph XII of the Bill of Complaint herein; that said right of way was granted to the said City of Los Angeles, at its own solicitation and request and without any consideration therefor, upon the terms and conditions of a certain agreement, copy of which, together with Map No. 4876 attached thereto, is hereunto annexed, marked Exhibit "D" and incorporated herein with the same force and effect as if set forth in full. That said pipe line easement is therein described according to the lines of the said Norway Survey and the abovementioned deed from Title Insurance & Trust Company to defendant Borax Consolidated Limited, which is dated April 24th, 1923 and was recorded May 3rd, 1923. That the said pipe line was constructed at the location and in

the manner prescribed in the said agreement and has been at all times since the month of May, 1928 maintained and operated, and same is how being maintained and operated by the said City of Los Angeles and its Board of Harbor Commissioners, under and pursuant to the terms of the said agreement, Exhibit "D".

That in the month of September, 1928, the said plaintiff, acting through its Harbor Department, also requested and obtained from these answering defendants, without payment of any compensation therefor, an additional right or easement to install and maintain within the lines of the right of way described in the said Exhibit "D", a telephone conduit and cable designed to permit of the proper control of valves, etc. on that certain oil wharf mentioned in Exhibit "D"; that the said conduit and cable were forthwith constructed and have been at all times since maintained and operated upon and over the said right of way described in the said Exhibit "D".

## V.

That during said period of time from May, 1923 until the summer of 1929, defendants, who had previously owned and operated borax mines at various locations in United States and elsewhere, and had maintained and operated borax factories at Alameda, California, and at Bayonne, New Jersey, acquired valuable ore deposits in Kern County, California, from which raw material for the manufacture of borax and other products is supplied, and in addition to building and fully equipping a refinery and factory upon the premises so acquired from the Title Insurance & Trust Company, as aforesaid, de-

fendants have ceased to operate their mines outside of said Kern County, have closed the said factory at Alameda, California, removing all machinery and other equipment to the Los Angeles factory, have discontinued the manufacture of borax at their large plant at Bayonne and have concentrated all their manufacturing in the United States at the said Los Angeles factory, which is located upon the premises here in dispute; that all of said things have been done in the belief of defendants that the title to the whole of said parcel so conveyed by Exhibit "B" was good and because of and in reliance upon the acts and omissions of said plaintiff, its officials and agents, as hereinbefore alleged in this separate defense and counterclaim.

VI.

That, according to information and belief, all of the said things mentioned in this defense and counterclaim have been done with the full knowledge of the City of Los Angeles, its Board of Harbor Commissioners and other officials, and the said City of Los Angeles has at no time, prior to the summer of 1929, nor has its Board of Harbor Commissioners or other officials made, asserted or intimated any claim that any portion of the lands occupied and claimed by these defendants was or is tideland or that the City of Los Angeles had or claimed any right, title or interest therein or thereto on any account whatsoever.

VII.

That by reason of all of the said matters and things, answering defendants, and each of them, have been misled to their prejudice by the conduct of the City of Los Angeles, have been induced to expend, and have expended,

enormous sums of money in the purchase of land and construction of permanent improvements on premises now claimed by the City of Los Angeles, all in the belief that their title thereto was good and that the said City of Los Angeles neither had nor claimed any right, title or interest therein or thereto; that the maintenance of this action by the City of Los Angeles would now operate as a fraud upon answering defendants and each of them; that the said City of Los Angeles has been guilty of laches and is estopped from maintaining this suit or asserting any right, title or interest or claim in or to any portion of the lands described or attempted to be described in Paragraph XII of the Bill of Complaint herein or in or to any portion of the lands described in the said Exhibit "B" hereto attached.

VIII.

That said defendant Borax Consolidated Limited is the owner in fee and, through its agent, Pacific Coast Borax Company, a Nevada corporation, is in possession of all of that real property which is particularly described in Exhibit "B" hereto attached; that the plaintiff, City of Los Angeles, makes or asserts an adverse claim of title to the same or some portion thereof, and claims and asserts that the portion thereof described, or attempted to be described, in Paragraph XII of the Bill of Complaint herein is tideland; that the said claim of the said City of Los Angeles is without right and that defendant Borax Consolidated Limited is entitled to have its title quieted as against all claims and pretensions of the said plaintiff, the City of Los Angeles, and to have it adjudged that said defendant is the absolute owner in fee simple of all of the premises described in Exhibit "B" hereto attached.

FOR A THIRD SEPARATE DEFENSE AND BY WAY OF COUNTERCLAIM THESE ANSWERING DEFENDANTS ALLEGE:

I.

That on or about the 19th day of October, 1908, a certain action was commenced in the Superior Court of the State of California, in and for the County of Los Angeles, entitled: "The People of the State of California, upon information of U. S. Webb, Attorney-General, plaintiff, vs. Banning Company, a corporation, Hancock Banning, William Banning, J. B. Banning, John Doe, Richard Roe, Mary Doe and Mary Roe, Defendants," and numbered 64540 on the records of the said Court; that said action was brought against the said defendants Banning Company and others for the purpose of having it adjudged and declared that all of Mormon Island, to wit, Lot One of Section 8, Township 5 South, Range 13 West, San Bernardino Meridian, was, at the time of the admission of the State of California to the Union and at all times since, located below the line of ordinary high tide and constituted tide land, the title to which was vested in the State of California, with the exception of approximately three acres of the said island; according to information and belief that the land so sought to be declared tideland in and by the said action embraced and included the same lands which are described, or purport to be described, in Paragraph XII of the Bill of Complaint herein; that at the time of the commencement of said action, said defendants Banning Company, Hancock Banning, William Banning, Joseph B. Banning or some of them were the owners and in possession of the

whole of said Mormon Island, and defendant Borax Consolidated Limited is the successor in interest of said defendants and each of them in and to that portion of said Mormon Island which is described in Exhibits "B" and "C", hereto annexed and made a part hereof.

That, as alleged in Paragraph X of the Bill of Complaint, an Act of the Legislature of the State of California, which became effective May 1st, 1911, granted to the City of Los Angeles all the right, title and interest which the State of California then held by virtue of its sovereignty in and to all tidelands and submerged lands then existing within the then boundaries of the City of Los Angeles; and at all times subsequent to said date plaintiff herein, the City of Los Angeles, was the real party in interest in the said cause No. 64540 on the records of the said Superior Court and through its City Attorney maintained and conducted said litigation at its own expense until the dismissal of the said complaint as hereinafter set forth; that in the said cause the said defendants Banning Company, a corporation, Hancock Banning, William Banning and Joseph B. Banning duly answered, denying the title of the State of California in or to any portion of the said Mormon Island and alleged the title thereto to be vested in them by virtue of the Patent which is mentioned in Paragraph XIII of the Bill of Complaint herein, to wit, Patent of December 30, 1881 from the United States to William Banning; that the issues in the said cause are the same as the issues in the case at bar; that the said cause was tried upon the issues so raised but no decision was rendered and no judgment entered therein, except the judgment of dismissal hereinafter mentioned.

That concurrently with the said cause No. 64540, another action was commenced in the Superior Court of the State of California, in and for the County of Los Angeles, and thereafter maintained and prosecuted by the State of California and the City of Los Angeles under the title "The People of the State of California, upon information of U. S. Webb, Attorney General, plaintiffs, vs. Banning Company, John Doe and Richard Roe, defendants", said cause being numbered 65230 on the records of said court; that in said cause the said State of California and the City of Los Angeles sought to establish title to a certain parcel of land therein described, which was then and is now commonly known as tideland location 152 and which adjoined on the East the said Mormon Island; that the said cause resulted in a final judgment to the effect that the said Banning Company was the owner and holder of the legal title to the said land so known as tideland location 152, which had been previously conveyed to its predecessors in interest by the State of California, but that the said legal title was subject to a public easement for navigation and fishery.

II.

That thereafter, and on or about the 24th day of July, 1917, plaintiff, City of Los Angeles, (which had then succeeded to the title of the State of California in and to all tidelands, as then existing, within the boundaries of the City of Los Angeles), did enter into a written compromise agreement with said Banning Company, a corporation, and Hancock Banning, wherein and whereby all disputes of the respective parties in and to the said tideland location 152 and the premises described in the

complaint in said cause No. 64540, to wit, the premises described or purporting to be described in Paragraph XII of the Bill of Complaint herein, were compromised, and said Banning Company did thereby convey to the City of Los Angeles all of its title to the said tideland location 152 and the City of Los Angeles did therein and thereby grant to the said Banning Company a tideland lease for a period of thirty years upon the said lands known as tideland location 152; that it was expressly stated in the said agreement that the said cause No. 64540, involving said Mormon Island, was then pending in the said Superior Court and "that the City shall and will, concurrently with the execution of this agreement, enter the dismissal, by the Attorney General of the State of California, of that certain action hereinabove referred to, now pending in the Superior Court of the State of California, in and for the County of Los Angeles, being Case No. 64540 under the style of the People of the State of California, upon information of U. S. Webb, Attorney General, plaintiff, against the Banning Company, defendant, relating to that parcel of land known as Mormon Island" and it was further specifically stated and agreed in the said instrument that the grant of the said tideland location 152 by the Banning Company to the City of Los Angeles was made not only in consideration of the said thirty year lease but also in consideration of the other terms, conditions and covenants of the said agreement, which included the covenant for dismissal of the said action No. 64540. That said agreement was authorized by Ordinance of the City Council of the City of Los Angeles. Attached to the said agreement, as a part thereof, was a certain map or plat desig-

nated as Exhibit "A" and endorsed "Prepared by Harbor Department to accompany Banning Agreement 9-12-16"; that on said Map said tideland location 152 is shown as adjoining said Mormon Island on the North and East and said Mormon Island is likewise shown, being delineated exactly in accordance with the Norway Survey, to which reference is made in the first and separate defense, the allegations of Paragraph II thereof being hereby incorporated herein by reference. That said agreement was duly executed by the respective parties thereto on or about the 24th day of July, 1917; and, solely by reason of and pursuant to the terms of said compromise agreement, said cause No. 64540 was thereafter, by order of the said Superior Court, on the 6th day of August, 1917, dismissed.

That said compromise agreement operated as a retraxit and constituted an abandonment by the City of Los Angeles of all of its claims to the whole or any portion of said Mormon Island as patented to said William Banning by the United States and as described and delineated in said field notes and plat of said Norway Survey; that it likewise constituted an agreement that no portion of said Island was situated below the line of ordinary high tide or constituted tideland, and there was merged into the said agreement for dismissal of the said cause No. 64540 all claims of the City of Los Angeles in and to the said Mormon Island or any portion thereof, and in and to all of the lands described or purporting to be described in Paragraph XII of the Bill of Complaint herein; that the order of dismissal of the said cause No. 64540, which

was entered upon and pursuant to the said compromise agreement, operated, under the laws of the State of California, as a judgment on the merits and is a bar to the maintenance of this action and an estoppel with respect to each of the issues raised by the Bill of Complaint herein.

III.

That on the 3rd day of May, 1923, Title Insurance & Trust Company, a corporation, which had succeeded, by certain mesne conveyances, to all of the title of Banning Company and Hancock Banning in and to said premises described in Exhibit "B" hereto annexed, conveyed the same to defendant Borax Consolidated Limited, by execution and delivery of that certain grant deed, copy of which is annexed hereto as Exhibit "B" and the said Borax Consolidated Limited is now the owner and holder of the same and the whole thereof.

That defendants William P. Banning, Katharine Stewart Banning, Joseph B. Banning, Jr. and Katherine Banning Graves (who, as devisees of Joseph B. Banning, deceased, were the record owners of the portion of Mormon Island which is described in Exhibit "C" hereto annexed) together with John C. Macfarland, as executor of the Last Will and Testament of Hancock Banning, deceased, have, since the commencement of this action, executed and delivered to defendant Borax Consolidated Limited a certain quitclaim deed, conveying to said defendant that portion of the said Mormon Island which is therein de-

scribed, copy of which deed is hereunto annexed, marked Exhibit "C" and made a part hereof with the same force and effect as if herein set forth in full; that said quit-claim deed was, on the 13th day of September, 1929 duly recorded in the office of the County Recorder of the County of Los Angeles, State of California.

That said defendant Borax Consolidated Limited is the owner in fee and, through its agent, Pacific Coast Borax Company a Nevada corporation, is in possession of all that real property which is particularly described in Exhibit "B" hereto attached, and is also the owner in fee of the parcel described in Exhibit "C" hereto annexed; that said parcels include all the lands described as, and claimed to be tideland, in and by the complaint in said former action, No. 64540; that the plaintiff, City of Los Angeles, makes or asserts an adverse claim of title to the whole or some portion of said lands described in Exhibits "B" and "C", and claims and asserts that the portion thereof described, or attempted to be described, in Paragraph XII of the Bill of Complaint herein, is tideland; that the said claim of the said City of Los Angeles is without right, and that defendant Borax Consolidated, Limited is entitled to have its title quieted as against all claims and pretensions of the said City of Los Angeles and to have it adjudged that said defendant is the absolute owner in fee simple of all of the premises described in Exhibits "B" and "C" hereto attached.

FOR A FOURTH, SEPARATE DEFENSE AND BY WAY OF COUNTERCLAIM, THESE ANSWERING DEFENDANTS ALLEGE:

I.

That Mormon Island, having an area of more than 18 acres of upland, was in existence prior to the admission of the State of California into the Union on September 9th, 1850 and was and is located within the Inner Bay of San Pedro, in the State of California and surrounded by navigable waters; that it constituted a part of the public lands of the United States on and prior to September 9th, 1850 and at all times thereafter until December 30th, 1881; that the said United States prior to said September 9th, 1850 owned all tidelands within the boundaries of the present State of California; that upon the admission of the said State to the Union title to all tidelands surrounding Mormon Island vested in said state and there remained until the 1st day of May, 1911, upon which date a certain Act of the Legislature of the State of California granted to the City of Los Angeles all of the right, title and interest which the State of California then had by virtue of its sovereignty in and to any and all tidelands, as the same then existed within the then boundaries of the City of Los Angeles.

II.

That the line of ordinary high tide constitutes and at all times has constituted the boundary between upland and tideland; that the same, whether designated as line of ordinary high tide or line of mean high tide, shifts and changes from day to day and has always done so, thus

causing uncertainties to exist as to the true location of the line of ordinary high tide or of mean high tide and as to the exact boundary line between tidelands and upland; that said uncertain or shifting line of the ordinary high tide constituted the boundary line between that portion of the public domain of the United States known as Mormon Island and the tidelands of the State of California adjoining the same at all times from September 9th, 1850 to December 30th, 1881; that it was impossible for the owners of the said respective lands to ascertain from day to day or at any time the exact location of the boundary line between their respective lands; that because of the existing uncertainty as to the true boundary between their lands and in order to avoid disputes between the said State of California and the said United States, as to the location of the boundary line and as to the title to any new land which might be created by accretion or reliction, whether caused by artificial or natural means, the said United States of America and said State of California between the 9th day of September, 1850 and the 30th day of December, 1881 did agree upon and establish as the true, fixed and permanent boundary line between the upland belonging to the United States of America and the tidelands belonging to the State of California that certain line which was surveyed and established by W. H. Norway, deputy United States Surveyor, pursuant to contract dated March 10th, 1880, made with Theodore Wagner, as Surveyor General of the United States for California, as the boundary line of said Mormon Island, which was surveyed and reported by him to be the line of the ordinary high tide surrounding said Island and which is particularly described

in the field notes and shown on plat of said survey, which was duly approved on August 26th, 1880 and filed in the office of the Surveyor General and of the General Land Office in the Department of the Interior of the United States; that said line is the same line according to which said Mormon Island was originally conveyed to William Banning by Patent, copy of which is annexed hereto as Exhibit "A", and is the same line which is stated as the boundary line of defendant's premises in that certain deed conveying a portion of Mormon Island to said defendant, copy of which is hereunto annexed as Exhibit "B". That the said United States of America at the request of the plaintiff, City of Los Angeles, and for its benefit, did, during said period from September 9th, 1850 to December 30th, 1881, and subsequent thereto, do much work and expend large sums of money in dredging and otherwise constructing deep water channels as a part of the creation of a deep water harbor at San Pedro, California, and particularly in and around the said Mormon Island; that all of said dredging and other construction and improvement work was done under and pursuant to the said agreement as to the said boundary line, which said agreed boundary line was at all times during said period of time recognized, accepted and acted upon by the United States and the State of California as the true, correct and permanent boundary line between the said upland and the said tideland.

III.

That all of the said upland, to wit, Lot One of Section 8, Township 5 South, Range 13 West, San Bernardino Meridian, as surveyed by W. H. Norway (the allegations

of Paragraph II of the first separate defense and counter-claim with respect thereto being incorporated herein by reference) was conveyed by the United States to William Banning on December 30th, 1881 by certain Patent, copy of which is hereunto annexed, marked Exhibit "A" and made a part hereof; that thereafter, by mesne conveyances, the defendant Borax Consolidated Limited became the owner in fee of all that portion of the said Lot One which is particularly described in deed, copy of which is hereunto annexed, marked Exhibit "B" and made a part hereof; that the same has always constituted upland.

IV.

That defendant Borax Consolidated Limited is the owner in fee and through its agent, Pacific Coast Borax Company, a Nevada corporation, is in possession of all that real property which is particularly described in Exhibit "B" hereto attached, which said parcel of land is bounded by the agreed boundary line above mentioned. That the plaintiff, City of Los Angeles, makes or asserts an adverse claim of title to the same or some portion thereof and claims and asserts that the portion thereof described, or attempted to be described, in Paragraph XII of the Bill of Complaint herein is tideland; that the said claim of the said City of Los Angeles is without right and the defendant Borax Consolidated Limited is entitled to have its title quieted as against all claims and pretensions of the said City of Los Angeles and to have it adjudged that the said defendant is the absolute owner in fee simple of all of the premises described in Exhibit "B" hereto attached.

FOR A FIFTH SEPARATE DEFENSE AND BY WAY OF COUNTERCLAIM, THESE ANSWERING DEFENDANTS ALLEGE:

I.

That Mormon Island, having an area of more than 18 acres of upland, was in existence prior to the admission of the State of California into the Union on September 9th, 1850, and was and is located within the Inner Bay of San Pedro, in the State of California, and surrounded by navigable waters; that it constituted a part of the public lands of the United States on and prior to September 9th, 1850, and at all times thereafter until December 30th, 1881; that the said United States prior to said September 9th, 1850, owned all tidelands within the boundaries of the present State of California; that upon the admission of the said State to the Union title to all tidelands surrounding Mormon Island vested in said state and there remained until the first day of May, 1911, upon which date a certain Act of the Legislature of the State of California granted to the City of Los Angeles all of the right, title and interest which the State of California then had by virtue of its sovereignty in and to any and all tidelands, as the same then existed within the then boundaries of the City of Los Angeles. That defendant Borax Consolidated Limited is, and at all times since May 3, 1923, has been the owner of all that portion of Mormon Island which is described in Exhibit "B" hereto annexed, and that the same has always constituted upland; that said defendant has acquired, by mesne conveyances, all the right, title and interest of Banning Company, a corporation, therein and thereto.

That the line of ordinary high tide constitutes the boundary between upland and tideland; that the same, whether designated as line of ordinary high tide or line of mean high tide, shifts and changes from day to day and has always done so, thus causing uncertainties to exist as to the true location of the line of ordinary high tide or of mean high tide and as to the exact boundary line between tidelands and privately owned upland; that said uncertain or shifting line of the ordinary high tide constituted the boundary line between the land of defendant Borax Consolidated Limited as described in Exhibit "B" hereto annexed and the tidelands of the City of Los Angeles adjoining the same; and that it was impossible for the owners of the said respective lands to ascertain from day to day, or at any time, the exact location of the boundary line between their respective lands; that disputes and litigation had previously arisen between the owners of said upland and said tidelands as to the location of the common boundary; that because of existing uncertainties as to the true boundary between their lands and in order to avoid disputes and litigation between plaintiff and defendant Banning Company, a corporation (the predecessor in interest of defendant Borax Consolidated Limited), as to the location of the said boundary line and as to title to any new lands which might be created by accretion or reliction, whether caused by artificial or natural means, said plaintiff and the said Banning Company, prior to May 3, 1923, and prior to the commencement of this action, and while said Banning Company was owner of said upland, did agree upon and establish as the true, fixed and permanent boundary line

between the lands then belonging to the said Banning Company (being land now belonging to defendant Borax Consolidated Limited) and the tidelands belonging to the City of Los Angeles, that certain line which was surveyed and established by W. H. Norway, Deputy United States Surveyor, pursuant to contract dated March 10th, 1880, made with Theodore Wagner, as Surveyor General of the United States for California, as the boundary line of said Mormon Island, which was surveyed and reported by him to be the line of the ordinary high tide surrounding said Island and which is particularly described in the field notes and shown on plat of said survey which was duly approved on August 26th, 1880, and filed in the office of the Surveyor General and of the General Land Office in the Department of the Interior of the United States; that said line is the same line according to which said Mormon Island was originally conveyed to William Banning by Patent, copy of which is annexed hereto as Exhibit "A" and is the same line which is stated as the boundary line of defendant's premises in that certain deed conveying a portion of Mormon Island to said defendant, copy of which is hereunto annexed as Exhibit "B"; that said agreed boundary line has been at all times since the making of said agreement recognized, accepted and acted upon by the said City of Los Angeles, said Banning Company and its successors in interest, including these answering defendants, as the true, correct and permanent boundary line between the said upland and the said tideland; that pursuant to the said agreement fixing said boundary, these answering defendants and their predecessors in interest have improved the premises described in said Exhibit "B", have

with the knowledge and consent of plaintiff, constructed permanent buildings, wharfs and other improvements on the property described, or purporting to be described, in Paragraph XII of the Bill of Complaint herein, have expended in such improvements more than $1,000,000.00, have fenced to the said agreed boundary line, have improved said property to said line, and have for a long time past occupied and now occupy the said land up to the said boundary line so agreed upon; that the City of Los Angeles, plaintiff herein, has at all times acquiesced in all of said acts done by said defendants pursuant to said agreement; that by reason of the said agreement, and the acts of the defendants, as above set forth, and the acquiescence of the plaintiff therein, the said boundary line as surveyed by said Norway, delineated on said plat and incorporated in said deeds, has become and is and was at the time of the commencement of this action the true boundary line between the land of these defendants and the tidelands of the plaintiff.

III.

That defendant Borax Consolidated Limited is the owner in fee and through its agent Pacific Coast Borax Company, a Nevada corporation, is in possession of all that real property which is particularly described in Exhibit "B" hereto attached, which said parcel of land is bounded by the agreed boundary line above mentioned. That the plaintiff, City of Los Angeles, makes or asserts an adverse claim of title to the same or some portion thereof and claims and asserts that the portion thereof described, or attempted to be described, in Paragraph XII of the Bill of Complaint herein is tideland; that the said

claim of the said City of Los Angeles is without right and the defendant Borax Consolidated Limited is entitled to have its title quieted as against all claims and pretensions of the said City of Los Angeles and to have it adjudged that the said defendant is the absolute owner in fee of all of the premises described in Exhibit "B" hereto attached.

FOR A SIXTH SEPARATE DEFENSE AND BY WAY OF COUNTERCLAIM, THESE ANSWERING DEFENDANTS ALLEGE:

I.

That Mormon Island, having an area of more than 18 acres of upland, was in existence prior to the admission of the State of California into the Union on September 9th, 1850 and was and is located within the Inner Bay of San Pedro, in the State of California and surrounded by navigable waters; that it constituted a part of the public lands of the United States on and prior to September 9th, 1850 and at all times thereafter until December 30th, 1881; that the said United States prior to said September 9th, 1850 owned all tidelands within the boundaries of the present State of California; that upon the admission of the said State to the Union title to all tidelands surrounding Mormon Island vested in said state and there remained until the first day of May, 1911, upon which date a certain Act of the Legislature of the State of California granted to the City of Los Angeles all of the right, title and interest which the State of California then had by virtue of its sovereignty in and to any and all tidelands, as the same then existed within

the then boundaries of the City of Los Angeles. That defendant Borax Consolidated Limited is, and at all times since May 3, 1923 has been the owner of all that portion of Mormon Island which is described in Exhibit "B" hereto annexed, and that the same constitutes upland.

II.

That the line of ordinary high tide constitutes the boundary between upland and tideland; that the same, whether designated as line of ordinary high tide or line of mean high tide, shifts and changes from day to day and has always done so, thus causing uncertainties to exist as to the true location of the line of ordinary high tide or of mean high tide and as to the exact boundary line between tidelands and privately owned upland; that said uncertain or shifting line of the ordinary high tide constituted the boundary line between the land of defendant Borax Consolidated Limited as described in Exhibit "B" hereto annexed and the tidelands of the City of Los Angeles adjoining the same; and that it was impossible for the owners of the said respective lands to ascertain from day to day, or at any time, the exact location of the boundary line between their respective lands; that disputes and litigation had previously arisen between the owners of said upland and said tidelands as to the location of the common boundary; that because of existing uncertainties as to the true boundary between their lands and in order to avoid disputes and litigation between plaintiff and said defendant as to the location of the said boundary line and as to title to any new lands which might be created by accretion or reliction

whether caused by artificial or natural means, the parties hereto, to wit, the plaintiff and these answering defendants, subsequent to May 3, 1923 and prior to the commencement of this action, did agree upon and establish as the true, fixed and permanent boundary line between the land belonging to the defendant, Borax Consolidated Limited and the tidelands belonging to the City of Los Angeles, that certain line which was surveyed and established by W. H. Norway, Deputy United States Surveyor, pursuant to contract dated March 10th, 1880, made with Theodore Wagner, as Surveyor General of the United States for California, as the boundary line of said Mormon Island, which was surveyed and reported by him to be the line of the ordinary high tide surrounding said Island and which is particularly described in the field notes and shown on plat of said survey which was duly approved on August 26th, 1880 and filed in the office of the Surveyor General and of the General Land Office in the Department of the Interior of the United States; that said line is the same line according to which said Mormon Island was originally conveyed to William Banning by Patent, copy of which is annexed hereto as Exhibit "A" and is the same line which is stated as the boundary line of defendant's premises in that certain deed conveying a portion of Mormon Island to said defendant, copy of which is hereunto annexed as Exhibit "B"; that pursuant to the said agreement, these answering defendants have improved the premises described in said Exhibit "B", have, with the knowledge and consent of plaintiff, constructed permanent buildings, wharfs and other improvements on the property described or purporting to be described in Paragraph XII of the Bill of Com-

plaint herein, have expended in such improvements more than $1,000,000.00, have fenced to the said agreed boundary line, have improved said property to said line and have for a long time past occupied and now occupy the said land up to the said boundary line so agreed upon; that the City of Los Angeles, plaintiff herein, has at all times acquiesced in all of said acts done by said defendants pursuant to said agreement; that by reason of the said agreement, and the acts of the defendants, as above set forth, and the acquiescence of the plaintiff therein, the said boundary line as surveyed by said Norway, delineated on said plat and incorporated in said deeds, has become and is and was at the time of the commencement of this action the true boundary line between the land of these defendants and the tidelands of the plaintiff.

III.

That defendant Borax Consolidated Limited is the owner in fee and through its agent, Pacific Coast Borax Company, a Nevada corporation, is in possession of all that real property which is particularly described in Exhibit "B" hereto attached, which said parcel of land is bounded by the agreed boundary line above mentioned. That the plaintiff, City of Los Angeles, makes or asserts an adverse claim of title to the same or some portion thereof and claims and asserts that the portion thereof described, or attempted to be described, in Paragraph XII of the Bill of Complaint herein is tideland; that the said claim of the said City of Los Angeles is without

right and the defendant Borax Consolidated Limited is entitled to have its title quieted as against all claims and pretensions of the said City of Los Angeles and to have it adjudged that the said defendant is the absolute owner in fee simple of all of the premises described in Exhibit "B" hereto attached.

FOR A SEVENTH SEPARATE DEFENSE AND BY WAY OF COUNTERCLAIM, THESE ANSWERING DEFENDANTS ALLEGE:

I.

That the State of California and the City of Los Angeles have jointly and severally, both before and after May 1st, 1911, actively engaged in the construction of a deep water harbor in the Bay of San Pedro, and to that end the City of Los Angeles has been especially active in causing and bringing about dredging of deep water channels in and around the said Mormon Island and that the said State and City have caused or permitted the Government of the United States and others, in dredging deep water channels, to deposit earth and other materials upon the said Mormon Island, in such quantities, and to make such other changes in the neighboring channels, as to raise the level of all that portion of the said Island which belongs to the defendant Borax Consolidated Limited and which is described in Exhibit "B" hereto annexed, above the level of the mean or ordinary high tides and, in fact, above the level of the highest high tides; that the said City of Los Angeles has expressly permitted defendants herein to erect, occupy and operate factories, warehouses, offices and other buildings, all upon the said

premises and extending to the boundary line described in Exhibits "A" and "B" hereto annexed; that all of the said things have operated to change the topography of that portion of Mormon Island which is claimed by defendants to such an extent that the whole thereof lies above the line of the highest high tides and has been rendered unfit for use for navigation or fisheries or as tideland, and the said State of California and the City of Los Angeles have intentionally abandoned all uses of the said land as tideland and the title thereto has, by virtue of said abandonment and the conveyances hereinafter mentioned, passed to and vested in defendant Borax Consolidated Limited.

II.

That the whole of the said Mormon Island was granted to William Banning by that certain Patent, copy of which is annexed hereto, as Exhibit "A"; and defendant Borax Consolidated Limited has, by certain mesne conveyances, succeeded to all of the right, title and interest of the said William Banning in and to that portion of the said Island which is particularly described in deed from Title Insurance & Trust Company to Borax Consolidated Limited, copy of which is annexed hereto as Exhibit "B".

III.

Defendants reiterate and re-allege with the same force and effect as if herein set forth in full, each and every of the allegations contained in Paragraph III of the Sixth separate and distinct defense and counterclaim and each and every allegation contained in paragraphs I and II of the Eighth separate and distinct defense and counterclaim herein contained.

FOR AN EIGHTH SEPARATE AND DISTINCT DEFENSE AND BY WAY OF COUNTERCLAIM, THESE ANSWERING DEFENDANTS ALLEGE:

I.

That sections 315 and 316 of the Code of Civil Procedure of the State of California now provide and at all times since March 11th, 1872 have provided as follows:

Sec. 315. "The people of this state will not sue any person for or in respect to any real property, or the issues or profits thereof, by reason of the right or title of the people to the same, unless—

1. Such right or title shall have accrued within ten years before any action or other proceeding for the same is commenced; or,

2. *The people, or those from whom they claim, shall* have received the rents and profits of such real property, or of some part thereof, within the space of ten years."

Sec. 316: "No action can be brought for or in respect to real property by any person claiming under letters patent or grants from this state, unless the same might have been commenced by the people as herein specified, in case such patent had not been issued or grant made."

That the phrase "right or title" as used in subdivision 1 of Section 315 has been construed and held by the court of last resort of the State of California to refer to the right or title of the state to sue and not to the right or title upon which the action is based.

II.

That no portion of the premises described in Exhibit "B" hereto annexed is or was at any time situated below the line of the ordinary high tide or of the mean high tide nor did it or any portion of it at any time constitute tideland; that more than ten years prior to the commencement of this action Banning Company, a corporation, (who then claimed, as the successor in interest of William Banning, to be the owner of the whole of the said Mormon Island, as bounded and described in Exhibit "A" hereto annexed), entered upon and made improvements upon that portion of the said Mormon Island which is particularly described in Exhibit "B", hereto annexed, being also the lands which are described, or purport to be described, in Paragraph XII of the Bill of Complaint herein; that thereafter Ralph Chandler Company, a corporation, claiming the right so to do under an option to purchase the said lands granted to it by said Banning Company, likewise entered upon the said lands and occupied and improved the same; that thereafter, by certain mesne conveyances, defendant Borax Consolidated Limited acquired all of the right, title and interest of Banning Company and Ralph Chandler Company in and to the said lands and every portion of the lands described in Exhibit "B", which is annexed hereto and made a part hereof, and said defendant placed thereon certain improvements, occupying the whole of the said premises that for more than ten years prior to the commencement of this action, the said premises so described in Exhibit "B" and each part thereof have been continuously in the possession of defendant Borax Consolidated Limited or one of its said

predecessors in interest and the corporations so in possession thereof, during said period of time, have taken and enjoyed possession under claim of right by virtue of the said Patent, Exhibit "A", and title derived therefrom; that taxes have been duly levied and assessed thereon by the City of Los Angeles and the County of Los Angeles, and all such taxes have been paid by said defendant and its predecessors in interest; that the possession and enjoyment of their said rights have been with full knowledge of the State of California and the City of Los Angeles but without leave or license from either of them, and said possession and enjoyment have been open, notorious and adverse to said State and City and the world; that the cause of action, if any, which the City of Los Angeles has with respect to the said lands, or the recovery thereof, accrued more than ten years prior to the commencement of this action; that the plaintiff's cause of action, if any, is barred by the said Sections 315 and 316 of the Code of Civil Procedure of the State of California and defendant Borax Consolidated Limited has acquired by adverse possession good title to all that portion of said Mormon Island which is described in Exhibit "B" hereto annexed.

Said plaintiff's cause of action, if any, is likewise barred by laches, through the failure of the said plaintiff to commence an action for the recovery of the lands mentioned in the Bill of Complaint herein for more than ten years after the alleged cause of action accrued.

FOR A NINTH SEPARATE DEFENSE AND BY WAY OF COUNTERCLAIM, THESE ANSWERING DEFENDANTS ALLEGE:

I.

That on the 30th day of December, 1881, the lands hereinafter described, including the lands described, or purporting to be described, in Paragraph XII of the Bill of Complaint on file herein, were public lands of the United States and above the line of ordinary high tide.

II.

That on the 30th day of December, 1881, in pursuance of proceedings duly had under the pre-emption laws of the United States of America, said United States of America duly granted and patented to the said William Banning the whole of Mormon Island in said Inner Bay of San Pedro, which said Island is legally and correctly described as:

Lot One (1) of Section Eight (8), in Township Five (5) South, Range Thirteen (13) West, San Bernardino Medidian;

that said grant was made by a certain instrument, a copy of which is annexed hereto and marked Exhibit "A" and made a part hereof, with the same force and effect as if herein set forth in full; that by mesne conveyance defendant Borax Consolidated Limited has become the owner of, and is the owner of, all of that portion of said Mormon Island described in that certain deed, copy of which is annexed hereto as Exhibit "B" and made a part hereof; that said lands last herein mentioned include the lands described, or attempted to be described, in Paragraph XII

of the Bill of Complaint on file herein. That at the time of the issuance of said Patent, said William Banning was in the open and notorious possession of said lands and was actually using the same, and that at all times since the issuance of said patent, said William Banning and his successors in interest have been in open and notorious possession of said lands, and have actually used the same, and from time to time have erected and constructed various structures and other buildings upon said lands, and have dredged upon said lands for the purpose of making the same more valuable in connection with navigation and commerce, and have filled portions of said lands; and that at all times since the date of said patent; said William Banning and his successors in interest, including these answering defendants, have paid all taxes levied and assessed upon said land; and that the City of Los Angeles, at all times since said lands were brought within its boundaries, has assessed the fee-simple title of said lands to these defendants or their predecessors in interest.

III.

That all of said acts hereinbefore set forth were done with the full knowledge and consent of the State of California and the City of Los Angeles, but without objection upon the part of said State of California or City of Los Angeles. That in the year 1894, the said William Banning conveyed the whole of said Mormon Island to a corporation then duly organized and existing and known as Banning Company, and that thereafter said Banning Company conveyed a portion of said Island to one Hancock Banning, and conveyed the remainder of said Island, including the lands described in Exhibit "B" hereto and

described, or attempted to be described, in the Bill of Complaint on file herein, to J. B. Banning, (whose successor in interest, Borax Consolidated Limited is as to lands described in said Exhibit "B"), and that each and all of said conveyances were made in accordance with the boundaries of said lands as determined in the survey by said W. H. Norway and as fixed in said patent; and that thereafter and to wit, on or about the 15th day of December, 1922, the said City of Los Angeles, at and for a price of more than $49,000.00 per acre, purchased from said Hancock Banning, said portion of said Mormon Island conveyed to him by said Banning Company, as aforesaid; that said lands were conveyed to said plaintiff, City of Los Angeles, by a certain deed, recorded in Book 1742, at page 132 of Official Records of the County of Los Angeles, and by a description made and based upon said survey of Mormon Island by said W. H. Norway and according to the easterly and westerly boundaries thereof as established by said W. H. Norway.

IV.

That thereafter and on or about the 3rd day of May, 1923, the devisees of said J. B. Banning (then deceased) caused to be conveyed to Borax Consolidated Limited, a corporation, all of that portion of Mormon Island lying north of the portion thereof conveyed to the City of Los Angeles, as aforesaid, and that the conveyance of said land was made by a description of said portion in accordance with the survey of said Island by said Norway, and establishing the boundaries of said portion so conveyed as established by said Norway, with the exception of the south boundary which was established by a line

running between the east and south line of said Island as established by said Norway; and that after said conveyance was so made as aforesaid, the City of Los Angeles did permit and consent to the improvement of all of said portion so conveyed to said Borax Consolidated Limited, up to and along the boundaries of said portion as established by said Norway.

V.

That in the year 1922, the plaintiff, City of Los Angeles, did induce the defendants William P. Banning, Katherine Stewart Banning, Joseph B. Banning, Jr. and Katharine Banning Graves to convey to said City of Los Angeles a certain leasehold interest then owned by said defendants as devisees of said J. B. Banning, deceased, which leasehold was of a reasonable market value in excess of $100,000.00; said conveyance was made in consideration of said City of Los Angeles agreeing to improve, by the erection of a bulkhead and retaining wall along the southerly and easterly portions of said Mormon Island, for the purpose, as asserted by said plaintiff, City of Los Angeles, of allowing and permitting said defendants to erect and construct piers and wharves over and upon all of that portion of said Island which lies south of said parcel so conveyed by Hancock Banning to said City of Los Angeles, as above alleged, and permitting the construction of same to the United States pierhead line along the southerly and easterly sides of said Island; that said defendants Banning were then the owners of all the said Mormon Island lying north and south of said parcel so conveyed to plaintiff by Hancock Banning and as such were owners of the parcel described in Exhibit

"B" hereto annexed; that said plaintiff, City of Los Angeles, at said time, neither made nor asserted any claim whatsoever to any portion of said Mormon Island within the boundaries thereof as established by said Norway survey, nor made nor asserted any claim whatsoever to any of the lands described, or purporting to be described, in Paragraph XII of the Bill of Complaint on file herein, although said City of Los Angeles then well knew that if said claim were made or established, said defendants Banning would not have conveyed said leasehold interest, or any part thereof, to the said City of Los Angeles, and although said plaintiff, City of Los Angeles, then well knew that if the claim made and asserted by the Bill of Complaint on file herein, should be established, that said defendants Banning would not receive nor have any benefit or consideration whatsoever for the erection of said bulkhead or retaining wall.

VI.

That after the making of said conveyance of said leasehold interest to the plaintiff, City of Los Angeles, as aforesaid, the said plaintiff did construct said bulkhead and retaining wall, and that thereafter said City of Los Angeles, under and in accordance with the terms of said agreement, did allow and permit said defendants Banning to fill the lands behind said bulkhead, which said lands are a portion of those certain lands to which the plaintiff seeks to quiet title in action No. Q-13-H, now pending in this Court against said defendants Banning, to wit, portions of said Island lying south of the said parcel conveyed by

Hancock Banning to said City; and at no time did said plaintiff, City of Los Angeles, maintain or assert any right, title or interest to said lands described in the complaint on file in said cause No. Q-13-H or those lands described, or attempted to be described, in the Bill of Complaint herein, nor any part thereof, but, on the contrary, said City did induce defendants Banning to believe, and to contract with the said plaintiff, City of Los Angeles, in the belief, that said City of Los Angeles neither made nor claimed any right, title or interest to said lands, or any part thereof, nor claimed on the part of said City of Los Angeles that said defendants did not have the full and unconditional right to use said lands and to erect and construct thereon, to the boundaries thereof, but not beyond said pierhead line, piers and wharves necessary for the proper and economical use of said lands; that at no time since the conveyance to it of said leasehold and prior to the summer of 1929 has the City of Los Angeles made or asserted any claim whatsoever to the lands described in the complaint in said cause Q-13-H or in the Bill of Complaint herein, or any part thereof. That the Statutes of the State of California, and particularly Sections 315 and 316 of the Code of Civil Procedure of said state, provide as follows:

Sec. 315: "The people of this state will not sue any person for or in respect to any real property, or the issues or profits thereof, by reason of the right or title of the people to the same, unless—

1. Such right or title shall have accrued within ten years before any action or other proceeding for the same is commenced; or,

2. The people, or those from whom they claim, shall have received the rents and profits of such real property, or of some part thereof, within the space of ten years."

Sec. 316: "No action can be brought for or in respect to real property by any person claiming under letters patent or grants from this state, unless the same might have been commenced by the people as herein specified, in case such patent had not been issued or grant made."

That the phrase "right or title" as used in subdivision 1 of Section 315 has been construed and held by the court of last resort of the State of California to refer to the right or title of the state to sue, and not to the right or title upon which the action is based.

VII.

That by reason of the facts hereinbefore set forth, the plaintiff, City of Los Angeles, has been guilty of laches, and is estopped from the maintenance or prosecution of this action.

VIII.

Defendants reiterate and re-allege with the same force and effect as if herein set forth in full each and every of the allegations contained in Paragraph V. of the First separate and distinct defense and counterclaim herein contained.

WHEREFORE, defendants pray that plaintiff take nothing by its Bill of Complaint herein; that it be adjudged and decreed that plaintiff has no right, title or interest in or to the lands, or any portion of the lands described or purporting to be described in the Bill of Complaint herein; that it be adjudged and decreed that

said Patent, copy of which is annexed hereto as Exhibit "A", was legally and regularly issued by the United States to William Banning on the date it bears; that said Patent conveyed to the said William Banning good title to all land described therein, to wit: to the whole of Mormon Island; that said Mormon Island then had an area of 18.88 acres of upland; that the boundary line between the said upland and adjoining tideland is and at all times was the line of the ordinary high tide as surveyed and delineated by the said W. H. Norway, being the meander line particularly described in his field notes of the said survey and as shown upon plat thereof duly approved on August 26th, 1880, and filed in the office of the Surveyor General and the General Land Office of the Department of the Interior of the United States; and that it be further adjudged and decreed that the lines as there delineated and established are the true boundaries between privately owned upland and tidelands or other lands belonging to the City of Los Angeles; that no portion of the lands described, or attempted to be described, in the Bill of Complaint have ever been tidelands or property belonging to the State of California or the City of Los Angeles; that the said State and City have respectively abandoned any and all claim or right which they might otherwise have had to the said lands or any portion thereof as tidelands; that the said City of Los Angeles is estopped to claim that the whole or any portion of the said lands are or is tideland, or that it has any right, title or interest

therein or thereto; that defendant Borax Consolidated Limited is the owner in fee simple absolute of all of those portions of the said Mormon Island which are particularly described in Exhibits "B" and "C" hereunto annexed; that the descriptions therein contained are true and correct descriptions of the lands so belonging to said defendant; that the whole thereof is upland and that the boundaries contained in the said deeds are true and correct boundaries between defendant's upland and tidelands or other lands belonging to the said City of Los Angeles; that the said defendant's title be quieted as against all claims or pretensions of the City of Los Angeles, whether alleged in the Bill of Complaint or not; that the said City of Los Angeles be enjoined and restrained from claiming or asserting any right, title or interest therein or thereto or commencing or maintaining any other or further actions in this Court or in any other Court, claiming or asserting any right, title or interest in or to the lands or any portion of the lands described in Exhibits "B" and "C" hereto annexed, or attacking the title of defendant Borax Consolidated Limited or the Patent or any of the conveyances which constitute its chain of title or any portion thereof; and that defendants herein have such other, further and different relief as may be meet and equitable in the premises.

Newlin & Ashburn

Solicitors for defendants Borax Consolidated Limited and Pacific Coast Borax Company, a Nevada corporation.

Verified.

[EXHIBIT A.]

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

CERTIFICATE NO. 807

WHEREAS, William Banning, of Los Angeles County California has deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at Los Angeles, California, whereby it appears that full payment has been made by the said William Banning according to the provisions of the Act of Congress of the 24th of April, 1820, entitled "An Act making further provision for the sale of Public Lands" and the acts supplemental thereto, for the Lot numbered one, of Section eight, in township five south of range thirteen west of San Bernardino Meridian in California containing eighteen acres and eighty eight hundredths of an acre according to the Official Plat of the Survey of the said Lands, returned to the General Land Office by the Surveyor General, which said Tract has been purchased by the said William Banning NOW KNOW YE, That the United States of America, in consideration of the premises, and in conformity with the several Acts of Congress in such case made and provided, have given and granted and by these presents do give and grant unto the said William Banning and his heirs, the said Tract above described: To have and to hold the same, together with all rights, privileges, immunities, and appurtenances, of whatsoever nature thereunto belonging, unto the said

William Banning and to his heirs and assigns forever; subject to any vested and accrued water rights for mining, agricultural, manufacturing or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws and decisions of courts and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law.

IN TESTIMONY WHEREOF, I, Chester A. Arthur, PRESIDENT OF THE UNITED STATES OF AMERICA,

have caused these letters to be made Patent, and the Seal of the General Land Office to be hereunto affixed.

SEAL GIVEN under my hand, at the City of Washington, the thirtieth day of December, in the year of our Lord, one thousand eight hundred and eighty-one and of the Independence of the United States the one hundred and sixth.

By the President Chester A. Arthur
By Wm. H. Crook, Secretary

Recorded Vol. 3, Page 185. S. W. Clark, Recorder of the General Land Office

A full, true and correct copy of the original recorded at the request of P. Banning Feb. 10, 1882, at 6 min. past 10 A. M.

Chas. C. Lamb, County Recorder
By A. N. Hamilton, Deputy.

[EXHIBIT B.]

## CORPORATION GRANT DEED.

---

TITLE INSURANCE AND TRUST COMPANY, a corporation organized under the laws of the State of California, and having its principal place of business at Los Angeles, California, in consideration of ---------- TEN ---------- DOLLARS, to it in hand paid, the receipt of which is hereby acknowledged, does hereby Grant to ..... BORAX CONSOLIDATED LTD., a corporation, all that real property situated in the city of Los Angeles, County of Los Angeles, State of California, described as follows:

Part of Lot One (1), Section 8, Township 5 South Range 13 West, S. B. B. & M., commonly known as "Mormon Island," described as follows:

Part of Lot One (1), Section 8, Township 5 South Range 13 West, S. B. B. & M., commonly known as "Mormon Island," described as follows:

Beginning at a point distant North 5° 08′ East 1034.30 feet and North 15° 17′ 30″ West 312.68 feet from Station 1 of the Government Survey of said Lot 1; thence North 15° 17′ 30″ West 485.52 feet; thence North 3° 45′ West 285.98 feet to the Northerly line of said Island, thence along the Northerly and Easterly lines of said Island North 71° 15′ East 64.29 feet to an angle point in said line; thence South 57° 58′ 20″ East 429.36 feet to an angle point in said line; thence South 16° 14′ 35″ East 190.19 feet to an angle point in said line; thence South 60° 13′ 20″ East 264.18 feet to an angle point in said

line; thence South 22° 14′ 15″ East 207.43 feet to an angle point in said line; thence South 30° 12′ 25″ West 177.90 feet to a point in said line distant North 30° 12′ 25″ East 416.39 feet from an angle point in said line; thence leaving said Easterly line North 78° 23′ West 561.14 feet to the place of beginning.

EXCEPTING therefrom that part lying Westerly of the Westerly line of said Lot 1 as patented by the United States to William Banning by patent recorded in Book 3, page 73, of Patents, in the office of the County Recorder of said County.

Subject to Taxes for the fiscal year 1923-1924.

IN WITNESS WHEREOF, the said Title Insurance and Trust Company has this 24th day of April 1923, hereunto caused its corporate name and seal to be affixed by its Vice President and Assistant Secretary, thereunto duly authorized by resolution of its Board of Directors, certified copy of which is recorded in Book 140, page 107 of the Miscellaneous Records of Los Angeles County.

TITLE INSURANCE AND TRUST COMPANY

By (Signed) W. W. Powell

Vice-President.

By (Signed) Dean Hoover

Assistant Secretary

Duly verified before F. H. Greene, notary public on April 24th, 1923.

[EXHIBIT C.]

Quitclaim Deed

WILLIAM P. BANNING, KATHARINE STEWART BANNING, JOSEPH B. BANNING, JR., KATHARINE BANNING GRAVES (formerly Katharine Mary Banning), and JOHN C. MACFARLAND, as Executor of the Last Will and Testament of Hancock Banning, deceased, in consideration of TEN and no/100 - - - - - - - - - - - - - - - - - DOLLARS, to them in hand paid, receipt of which is hereby acknowledged, do hereby Remise, Release and forever Quitclaim to BORAX CONSOLIDATED LIMITED, a corporation, the real property in the City of Los Angeles, County of Los Angeles, State of California, described as:

"Beginning at Station Four Sixty (460) of the United States Harbor lines as established by the Secretary of War July 29, 1908; thence South 15° 17′ 30″ East 88.52 feet to a point on the meander line of the Survey of Mormon Island by W. H. Norway, Deputy Surveyor, under his contract with Theo. Wagner, United States Surveyor General of California, bearing date of March 10, 1880, commenced May 22, 1880, and completed May 24, 1880; thence Northerly along the meander line of said Norway Survey, North 19° 45′ West 213.99 feet, to meander corner No. 5 of said Norway Survey; thence Northerly along the meander line of said Norway Survey, North 1° 00′ West 158.25 feet, to meander corner No. 6 of said Norway Survey; thence Northeasterly along the

meander line of said Norway Survey, North 71° 15′ East 34.78 feet to a point on the United States Pierhead Line as established by the Secretary of War July 29, 1908; thence Southerly along said Pierhead Line South 3° 45′ East 285.98 feet, to the point of beginning."

successors

To Have and to Hold to said grantee, its ~~heirs~~ or assigns forever.

September

Witness our hands this 12th day of ~~July,~~ 1929.

William P. Banning
Katharine Stewart Banning
Joseph B. Banning, Jr.
Katharine Banning Graves
John C. Macfarland,
as Executor of the Last Will and Testament of Hancock Banning, Decd.

State of California, }
County of Los Angeles. } ss.

September

On this 12th day of ~~July,~~ 1929, before me, Mary S. Alexander, a Notary Public in and for said County, personally appeared William P. Banning, Katharine Stewart Banning, Joseph B. Banning, Jr., Katharine Banning Graves (formerly Katharine Mary Banning), and John C. Macfarland, as Executor of the Last Will and Testament of Hancock Banning, deceased, known to

me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that they executed the same.

(Affix seal here)

Witness my hand and official seal.

(Seal) Mary S. Alexander

Notary Public in and for the County of Los Angeles, State of California

Quitclaim Deed

INDIVIDUAL

WILLIAM P. BANNING ET AL

TO

BORAX CONSOLIDATED LIMITED.

Dated July 1929

Title Insurance and Trust Company
Title Insurance Building
Los Angeles, California

Order No.....

When recorded please mail this deed to

Borax Consolidated, Ltd.
Central Building,
Los Angeles, California

Recorded
Sep. 13, 1929
in Bk. 9360
page 1540 O. R.
L. A. County.

[Exhibit D.]

(stamped)
City of Los Angeles
Agreement 103
Harbor Department

CITY OF LOS ANGELES
CALIFORNIA

HARBOR DEPARTMENT

AGREEMENT WITH

PACIFIC COAST BORAX COMPANY

FOR Pipe Line Right of Way for Shell Company of California.

AGREEMENT

THIS AGREEMENT, made and entered into this 28th day of MARCH, 1928, by and between the PACIFIC COAST BORAX COMPANY, a corporation, hereinafter called the Company, and the CITY OF LOS ANGELES, a Municipal Corporation of the State of California, by its BOARD OF HARBOR COMMISSIONERS, hereinafter called the City,

WITNESSETH: That

WHEREAS, the Company is the owner of certain property at Los Angeles Harbor adjacent to Berths 165 and 166 which is being used for the manufacture and distribution of borax and similar products; and

WHEREAS, the Shell Company of California is in possession of certain lands belonging to the City located adjacent to and southerly of the Company's property which is being used for the storage and transportation of petroleum products and compounds thereof, and in connection with which it is using certain wharves owned by the City at Berth 167; and

WHEREAS, the business of said oil company has increased to such an extent as to require the use of additional wharf facilities, and the City has a municipal oil wharf which is available for such purpose located at Berth 164 just northerly of and adjacent to the property of the company; and

WHEREAS, the Company is ready and willing to permit the City to construct the necessary pipelines across the property of the Company for the purpose of connecting the storage tanks and pumps of the Shell Company of California with said municipal Berth 164 and to permit the transportation of such petroleum and products and compounds thereof as said oil company may desire to move through said pipelines;

NOW, THEREFORE, for and in consideration of the sum of ten dollars ($10.00) payable annually in advance by the City to the Company, the Company does hereby grant to the City the right to use the following described parcel of land as a right of way for the uses and purposes and under the terms and conditions hereinafter set forth, which said lands are situate in the City of Los Angeles, County of Los Angeles, State of California, and are more particularly described as follows, to wit:

The true point of beginning is located as follows: Beginning at Station 460 of the United States Harbor Lines as established by the Secretary of War, July 29, 1908; thence along the pierhead line of said harbor lines north 3° 45′ west a distance of 285.98 feet to a point on the northerly line of a "Part of Lot 1, Section 8 Township 5 South, Range 13 west S. B. B. & M.," commonly known as Mormon Island thence along said northerly line north 71° 15′ east a distance of 40.68 feet to the true point of beginning;

Thence south 46° 44′ 11″ east a distance of 597.04 feet to a point; thence south 60° 13′ 20″ east a distance of 262.37 feet to a point; thence south 22° 14′ 15″ east a distance of 200.74 feet to a point; thence south 30° 12′ 25″ west a distance of 168.21 feet to a point; thence north 78° 23′ west a distance of 406.25 feet to a point; thence south 11° 37′ west a distance of 8.00 feet to a point on the southerly line of the property conveyed to the Borax Consolidated Limited by deed dated April 24th, 1923, and recorded in book 2329, page 1, of Official Records of Los Angeles County; thence along said southerly line south 78° 23′ east a distance of 412.00 feet to a point on the easterly line of said property conveyed to the Borax Consolidated Limited; thence along said easterly line north 30° 12′ 25″ east a distance of 177.90 feet to a point; thence continuing along said easterly line north 22° 14′ 15″ west a distance of 207.43 feet to a point;

thence continuing along said easterly line north 60° 13′ 20″ west a distance of 264.18 feet to a point; thence north 46° 44′ 11″ west a distance of 591.84 feet to a point on the northerly line of aforesaid property conveyed to the Borax Consolidated Limited; thence along said northerly line south 71° 15′ west a distance of 9.06 feet to the true point of beginning; containing 13,152 square feet or 0.302 acres.

The above described premises are shown on Map 4876 attached hereto and made a part hereof.

That the permission hereby granted shall at all times be held and exercised upon each and every of the following express terms and conditions:

1. That the City shall have the right, at any time during the life of this agreement, to establish, maintain, use, operate, renew, change the size of, and remove one or more pipe lines, including the necessary pipes, gate valves, manholes and appurtenances, along the rights of way herein described, for the purpose of transporting and distributing petroleum and products and compounds thereof. For the purposes aforesaid the City, by itself or through the Shell Company of California, shall have the right to enter upon said property, subject to such reasonable regulations with respect to such entrance as the Company may impose. At the place or places where such pipe lines are laid under or adjacent to the wharf structures of the Company, the same shall be installed and protected in such manner as will in no way affect the

rates on fire insurance covering any such wharf structures.

2. The City shall at all times maintain the surface of of the ground along said right of way in a condition satisfactory to the Company, and agrees to leave the same in a like condition upon the termination of this permission. The Company reserves the right, however, to pave over said right of way and to cross same with pipe lines of its own in such manner as will not interfere with pipe lines laid by the City hereunder.

3. That the permission hereby granted shall be revocable by the Company at any time upon ninety (90) days written notice to the Board of Harbor Commissioners of said City.

4. That upon the termination aforesaid of the permission hereby granted the City shall immediately quit and surrender possession of said premises to the Company, and shall at its own cost and expense remove the pipe lines installed thereon.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized the day and year first hereinabove written.

PACIFIC COAST BORAX COMPANY,

By C. B. Zabriskie

Vice Pres't and Gen'l Manager.

ATTEST:

F. T. Winters

Secretary. (Seal)

THE CITY OF LOS ANGELES,

By its Board of Harbor Commissioners,

By W. B. Allen

President.

ATTEST:

J. G. Starr

Secretary.

APPROVED AS TO FORM

Feb 14 1928

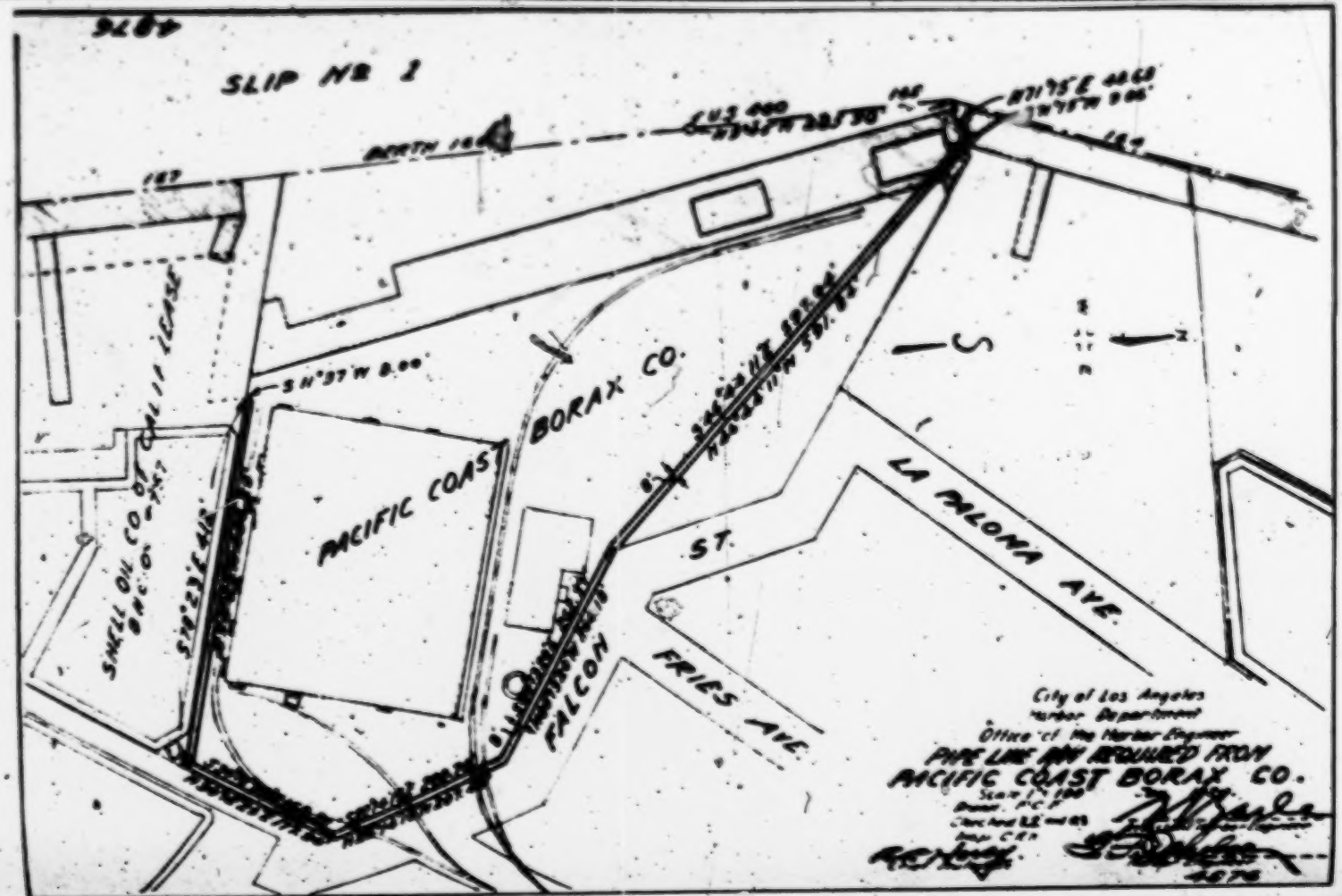
Jess E. Stephens,

City Attorney

By Clyde M. Leach

Assistant.

[Endorsed]: Received copy of the within this 15 day of Nov 1929 Erwin P. Werner, City Attorney By Schauss Filed Nov. 15, 1929 R. S. Zimmerman, Clerk By Edmund L. Smith, Deputy Clerk.


4876
SLIP NO 1
SOUTH 100
S 11°37' E 44.63
S 11°37' W 8.00
SHELL OIL CO. OF CAL. LEASE
PACIFIC COAST BORAX CO.
S 11°37' E 44.63
N 11°37' W 351.95
S
LA PALOMA AVE.
ST.
FRIES AVE.
FALCON
City of Los Angeles
Harbor Department
Office of the Harbor Engineer
PIPE LINE TO BE REMOVED FROM
PACIFIC COAST BORAX CO.
4876

[TITLE OF COURT AND CAUSE.]

## REPLY.

Plaintiff, the City of Los Angeles, a municipal corporation of the State of California, for reply to the answer of defendants Borax Consolidated Limited, a corporation, and Pacific Coast Borax Company, a Nevada corporation, admits, denies and alleges:

I.

For reply to the allegations contained in Paragraph VI of the answer, plaintiff denies that defendant Borax Consolidated Limited is the owner, in fee, or otherwise, of the whole or any part of the land described in Paragraph XII of the complaint; denies that said defendant acquired title thereto by mesne conveyances or otherwise from William Banning or anyone; denies that the land described in Paragraph XII of the complaint has at any time since September 9, 1850, been public land of or belonged to the United States; denies that on December 30, 1881, or at any time, pursuant to proceedings had under the pre-emption laws of the United States, or otherwise, the United States granted and/or patented to said Banning or to anyone the whole or any part of Morman Island in the Inner Bay of San Pedro, or the whole or any portion of that part of Lot 1, Section 8, Township 5 South, Range 13 West, San Bernardino Meridian, described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide existed in its natural state, by an instrument or patent, copy of which is annexed to the answer and marked Exhibit "A", or by any patent or grant.

II.

For reply to the allegations contained in Paragraph VII of the answer, plaintiff, for lack of information and belief, denies that defendant Borax Consolidated Limited, through any conveyances or conveyance, is or was the successor in interest of defendants William Banning, William P. Banning, Katharine Stewart Banning, Joseph B. Banning, Jr., Katharine Banning Graves, Banning Company, and/or Hancock Banning, deceased, in/or to any part of that part of said Lot 1 described in Paragraph XII of the complaint. For lack of information and belief, plaintiff denies that defendant Borax Consolidated Limited is now and/or has been at all times since May 3, 1923, or at any time, the actual and/or record owner of the land described in Paragraph XII of the complaint or any part thereof; denies that the pierhead line established by the Secretary of War, July 29, 1908, constitutes any boundary line of land owned by defendant Borax Consolidated Limited.

III.

For reply to the allegations contained in Paragraph VIII of the answer, plaintiff denies that the patent mentioned in said paragraph has at any time been a valid patent or grant of the land described in Paragraph XII of the complaint; denies that said patent in so far as it purports to include the land described in Paragraph XII of the complaint was duly made and/or issued under the statutes of the United States pursuant to any proceedings

had under the statutes of the United States; denies that at all times since the issuance of said patent, or at any time, all or any part of the land described in Paragraph XII of the complaint has been, or is, the property of defendant Borax Consolidated Limited and/or any of its predecessors in interest, to the exclusion of the claim of the State of California or of plaintiff.

## REPLY TO FIRST SEPARATE DEFENSE AND COUNTERCLAIM.

### I.

For reply to the allegations contained in Paragraph I of the first separate defense and counterclaim of the answer, plaintiff admits all of the allegations contained in said first separate defense and counterclaim, except that plaintiff denies that Mormon Island in the Inner Bay of San Pedro, State of California, had, on September 9, 1850, and denies that said island at any time subsequently to September 9, 1850, has had, an area of more than, or of, eighteen acres, or an area in excess of five acres; denies that the area and/or extent of the public land of Mormon Island was officially determined on August 26, 1880, or at any other time, by the United States or by any person or official; denies that the alleged survey of Mormon Island by W. H. Norway, was a correct survey thereof; and denies that said Norway survey was approved.

### II.

For reply to the allegations contained in Paragraph II of the first separate defense and counterclaim of the answer plaintiff denies that it was a part of the duty

of the Commissioner of the General Land Office on March 10, 1880, or any time, to cause a survey to be made of Mormon Island for the purpose of determining how much if any of the land of said island was public land, or otherwise, the exact area thereof and the boundaries of same. Plaintiff denies that W. H. Norway made a correct or true survey of Mormon Island; plaintiff denies that the Norway field notes of his alleged survey were approved; plaintiff denies that the alleged plat or map of said island was approved; plaintiff denies that Mormon Island was officially designated as Lot 1, Section 8, Township 5 South, Range 13 West, San Bernardino Meridian.

III.

For reply to the allegations contained in Paragraph III of the first separate defense and counterclaim, plaintiff denies that on December 10, 1880, or at any other time, William Banning duly filed, pursuant to the laws of the United States, his declaratory statement showing settlement on that part of Lot 1, Section 8, Township 5 South, Range 13 West, San Bernardino Meridian, described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide existed in its natural state, on the 6th day of April, 1880, or at any other time and denies that pursuant to proceedings had under said laws, the said William Banning made necessary proof and/or paid necessary moneys, and/or became entitled to or received a patent to any part of that part of said Lot 1 described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide

existed in its natural state. Plaintiff denies that the President of the United States, on December 30, 1881, or at any time, issued a patent to William Banning for land described in Paragraph XII of the complaint; denies that the alleged patent to Mormon Island conveyed to said William Banning any part of said Lot 1 described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary high tide surrounding said Mormon Island as said line of ordinary high tide existed in its natural state. Plaintiff denies that said patent conveyed to said William Banning the whole of the land surveyed by said Norway and denies that said patent conveyed any part of said land described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary high tide surrounding said island as said line of ordinary or mean high tide existed in its natural state. Plaintiff denies that it was the duty of the Commissioner of the General Land Office to ascertain, and denies that he was vested with jurisdiction to ascertain the nature or extent of any part of the land described in Paragraph XII of the complaint. Plaintiff denies that the Commissioner of the General Land Office determined and decided that all of the land describ[illegible] said patent, to-wit, the whole of said Lot 1, was [illegible]nd or public land of the United States; denies that he determined and/or decided that any part of the land described in Paragraph XII of the complaint was public land or upland of the United States; denies that said Commissioner determined and decided that all of said Lot 1 constituted part of the public domain of the United States; denies that he determined and/or decided that any part of the land described in Paragraph XII of the complaint con-

stituted a part of the public domain of the United States; denies that the public land of the United States was correctly described and/or delineated in the field notes of said W. H. Norway; and/or on said plat, and/or on the plat or map thereof; and denies that the area of said upland or public land of Mormon Island constituted 18.88 acres or any area in excess of five acres.

IV.

For reply to the allegations contained in Paragraph IV of the first separate defense and counterclaim of the answer, plaintiff, for lack of information and belief, denies that through certain mesne conveyances defendant Borax Consolidated Limited, on or about May 3, 1923, or at any other time, acquired all or any right, title and/or interest of said William Banning in and to any part of that portion of the lands described in said patent from the United States which are described in Paragraph XII of the complaint, and denies that said Banning ever had any right, title or interest therein.

Plaintiff denies that the defendants named in lines 22 to 28 of page 15 of the answer, or any of them, were ever the record or any owners or owner of the land described in Exhibit "C" annexed to the answer, and, for lack of information and belief, denies that they or any of them executed and/or delivered deed therefor, or conveyed the same or any part thereof to defendant Borax Consolidated Limited.

Plaintiff denies that defendant Borax Consolidated Limited is the owner and/or holder of all or any part of that portion of said Lot 1 described in Paragraph XII

of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide existed in its natural state. Plaintiff, for lack of information and belief, denies that defendant Pacific Coast Borax Company is in possession of and/or occupies that part of Lot 1 described in Paragraph XII of the complaint, and denies that it claims under any title of defendant Borax Consolidated Limited as agent or otherwise of said last named corporation; and denies that defendant Borax Consolidated Limited has any title thereto.

V.

For reply to the allegations contained in Paragraph V of the first separate defense and counterclaim of the answer, plaintiff denies that the defendant Borax Consolidated Limited is the owner in fee, or otherwise, of that part of the land described in Exhibit "B" attached to the answer described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide existed in its natural state, and denies that said defendant is in possession of the same; denies that said defendant is the owner in fee or otherwise of that part of the land described in Exhibit "C" attached to the answer described in said Paragraph XII of the complaint. Plaintiff admits that plaintiff, City of Los Angeles, a municipal corporation, makes and asserts claim of title to all that portion of the land described in said Exhibits "B" and "C" described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary

or mean high tide existed prior to the filling-in of said land by artificial means or the hand of man on or about the years 1908, 1909, and subsequent years, and admits that plaintiff makes and asserts a claim to all that property described in Paragraph XII of plaintiff's complaint. Plaintiff denies that said claim of plaintiff is without right, and denies that defendant Borax Consolidated Limited is entitled to a decree quieting title in it as against the claims of the plaintiff; and denies that said defendant is entitled to have it adjudged that said defendant is the absolute owner in fee simple or at all of any part of the premises described in said Exhibits "B" and "C" described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide existed in its natural state.

## REPLY TO SECOND SEPARATE DEFENSE AND COUNTERCLAIM.

### I.

For reply to the allegations contained in Paragraph I of the second separate defense and counterclaim of the answer, plaintiff makes the same admissions and denials with reference to Paragraph II of defendants' first separate defense and counterclaim incorporated in said Paragraph I as are made in its reply hereinabove to said paragraph, with the same force and effect as if herein set forth in full. Plaintiff denies that it purchased from Hancock Banning any part of the land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed

in its natural state prior to said tide land having been filled in by artificial means or the hand of man on or about the years 1908, 1909, and subsequent years.

II.

For reply to the allegations contained in Paragraph II of the second separate defense and counterclaim of the answer, plaintiff denies that defendant Borax Consolidated Limited purchased from Title Insurance and Trust Company, or from anyone, that part of the land described in Exhibit "B" annexed to the answer described in Paragraph XII of the complaint or any part thereof, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide existed in its natural state prior to said tide land being filled in by artificial means or the hand of man. Plaintiff denies that said Title Insurance and Trust Company was the successor in interest to William Banning in or to the above-mentioned and described tide land, and denies that said Banning ever had any title to or interest in said tide land. Plaintiff denies that any part of the land described in Paragraph XII of the complaint was or is upland of Mormon Island, and denies that the same was conveyed to William Banning by patent dated December 30, 1881, copy of which is annexed to the answer marked "A", or by any patent, or at all. Plaintiff denies that plaintiff, The City of Los Angeles, or any board or officer or official thereof, knew at any time that defendant Borax Consolidated Limited believed that the parcel of land described in said Exhibit "B" consisted entirely of upland and/or that said defendant was about to make purchase thereof in reliance upon said or any

such belief. Plaintiff denies that plaintiff, or any board or officer or official thereof, made statements to said defendants that said parcel was upland, and denies that any duty rested upon plaintiff to inform said defendant of any claim on the part of the City of Los Angeles that any portion of said parcel was not upland, and denies that plaintiff, or any board or officer or official thereof, knowingly stood by and permitted defendant to purchase said land in the belief that the whole thereof was upland and no portion of it tide land, and denies that plaintiff, or any board or officer or official thereof, assisted in persuading and inducing defendant to purchase said land and locate its industry thereon.

III

For reply to the allegations contained in Paragraph III of the second defense and counterclaim of the answer, for lack of information and belief plaintiff denies that there have been placed upon the parcel of land hereinabove mentioned certain or any improvements. For lack of information and belief, plaintiff denies that any improvements were constructed thereon by said defendants or any of them. Plaintiff alleges that whatever improvements may have been placed upon said land, the parties so placing improvements upon said land would be required in the ordinary course of business and procedure of the City of Los Angeles to procure building permits for such construction; and had such structures been placed upon land belonging to the City of Los Angeles, the parties placing such structures upon said land would nevertheless

have been compelled under the ordinances of the City of Los Angeles to procure building permits for such construction. Plaintiff denies that the issuance of any building permits is a recognition by plaintiff of ownership. Plaintiff denies that before the issuance of any such building permits plaintiff was informed of any intention of defendants to construct any such improvements. Plaintiff denies that it has at no time prior to the summer of 1929 made claim that the land described in Paragraph XII of the complaint was tide land or that plaintiff had title thereto. Plaintiff denies that plaintiff has at any time levied and assessed taxes upon the land described in Paragraph XII of the complaint. Plaintiff denies that said land has been assessed to said defendants or either of them or their predecessors in interest as upland or otherwise. Plaintiff denies that said defendants, or either of them, have paid taxes upon said land, and denies that plaintiff has received taxes thereon. Plaintiff denies that at all times since December 30, 1881, and/or particularly since May 3, 1923; or at any time, plaintiff, the City of Los Angeles, has repeatedly and/or continuously or otherwise, and/or in numerous and/or divers ways and/or forms or otherwise recognized and/or agreed that the boundaries of the land delineated in the Norway field notes and plats were and/or are the true and correct boundaries of the upland of Mormon Island.

IV.

For reply to the allegations contained in Paragraph IV of said second defense and counterclaim of the answer, plaintiff admits the same, except that the premises therein described belong to the said defendants or either of them.

V.

For reply to the allegations contained in Paragraph V of said second defense and counterclaim, plaintiff has no knowledge of the matters and things alleged in lines 16 to 31 on page 24 of the answer and requires strict proof of the same; and specifically denies any of the matters and things therein alleged were done by said defendants because and/or in reliance upon any acts and/or omissions of plaintiff, its officers or agents.

VI.

For rely to the allegations contained in Paragraph VI of said second separate defense and counterclaim of the answer, plaintiff denies that the matters and things mentioned in said second defense and counterclaim have been done with the full or any knowledge of this plaintiff or any board, officer or official thereof, and plaintiff denies that at no time prior to the summer of 1929 it has not asserted or intimated claim that the land described in Paragraph XII of the complaint was tide land, and denies that it has not claimed right, title or interest therein.

VII.

For reply to the allegations contained in Paragraph VII of said second separate defense and counterclaim, plaintiff denies that said defendants, or either or any of them,

have been by any conduct of plaintiff, the City of Los Angeles, or any board, officer or official thereof, misled to the prejudice of said defendants, and denies that said defendants have been by plaintiff induced to expend or have expended money in the belief that plaintiff did not claim title to said tide land. Plaintiff denies that the maintenance of this action by plaintiff would or does operate as a fraud upon said defendants or either or any of them. Plaintiff denies that plaintiff has been guilty of laches in the bringing of this suit, and plaintiff denies that plaintiff is estopped from maintaining this suit or from asserting its right, title and interest or claim in or to the portion of land described in Paragraph XII of the complaint.

VIII.

For reply to the allegations contained in Paragraph VIII of said second separate defense and counterclaim of the answer, plaintiff denies that the defendant Borax Consolidated Limited is the owner in fee or otherwise of any part of the real property described in Exhibit "B" annexed to said answer described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling in of said tide land on or about the years 1908, and 1909. For lack

of information and belief, plaintiff denies that said defendants or either of them are in possession of said tide land. Plaintiff admits that plaintiff makes and asserts a claim of title to said land, as described in Paragraph XII of its complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide existed in its natural state prior to said tide land being filled in in 1908 and 1909, adverse to said defendants and each of them, and denies that said claim is without right, and denies that defendant Borax Consolidated Limited is entitled to have a decree quieting title to said land against the claims of plaintiff; and denies that said defendant is entitled to a decree adjudging that said defendant is the owner in fee simple or otherwise of that part of said premises described in said Exhibit "B" as are described in said Paragraph XII of the complaint.

## REPLY TO THIRD SEPARATE DEFENSE AND COUNTERCLAIM.

### I.

For reply to Paragraph I of said Third Separate Defense and Counterclaim of the answer, plaintiff denies that at the time of the commencement of the action therein mentioned, to-wit, No. 64540, defendants Banning Company, Hancock Banning, William Banning, Joseph B. Banning, or any of them, were the owners or owner, and/or in possession of that part of the land

described in said action as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary high tide existed in its natural state, and denies that defendant Borax Consolidated Limited is the successor in interest of said defendants, or any of them, in and to that portion of land described in Exhibits "B" and "C" annexed to the answer of defendants, or any part thereof, as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling in of said tide land by artificial means or the hand of man on or about the years 1908, and 1909. For lack of information and belief, plaintiff denies that defendants, Banning Company, a corporation, Hancock Banning, William Banning, and Joseph B. Banning, answered in said Cause No. 64,540, and requires proof of the same; denies that said Cause No. 64,540 was tried upon the issues, or any issue; admits that no decision was ever rendered and no judgment ever entered in said cause, except the judgment of dismissal therein; denies that said Cause No. 64540 was dismissed other than without prejudice to the bringing of another action pursuant to stipulation duly signed by the attorneys of record for the plaintiff and defendants therein, which stipulation, in words and figures, is as follows, to-wit:

"Civil Form 3

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA IN AND FOR THE COUNTY OF LOS ANGELES.

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| | | |
|---|---|---|
| People of State of California, | : | |
| Plaintiff, | : | |
| vs. | : | DISMISSAL |
| Banning Company, et al., | : | 64540. |
| Defendants. | : | |

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TO CLERK OF SAID COURT:

You will enter the dismissal of the above entitled action, without prejudice.

ALBERT LEE STEPHENS, City Atty.
ANDERSON & ANDERSON, of Counsel.

Los Angeles, Cal., August 6, 1917.

U. S. WEBB, Atty. Gen'l.
Attorney for Plaintiff.

GIBSON, TRASK, DUNN & CRUTCHER,
Attys. for Defs.

No. 64540

SUPERIOR COURT
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

People of State of California,
Plaintiff,

vs.

Banning Company, et al.,
Defendants.

- - - - - - -

DISMISSAL

Filed Aug. 6, 1917.
H. J. LELANDE, Clerk,
By S. Cole, deputy.

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The foregoing instrument is a correct copy of the original on file at this office.

ATTEST March 20th 1930.

(SEAL) L. E. LAMPTON,

County Clerk and Clerk of the Superior Court in and for the County of Los Angeles, State of California.

By— G. Ornstein,
Deputy."

Plaintiff admits the allegations contained in Paragraph I of the third separate defense and counterclaim as to Cause No. 62520 mentioned therein, except that plaintiff denies that Tide-Land Location 152 mentioned therein adjoined on the east the upland of said Mormon Island.

II.

For rely to the allegations contained in Paragraph II of the third separate defense and counterclaim, plaintiff denies that plaintiff on or about the 24th day of July, 1917, or at any other time, did enter into a written compromise agreement with said Banning Company, a corporation, and Hancock Banning, wherein and whereby all disputes of the respective parties in and to the premises described in the complaint and/or amended complaint in said Cause No. 64,540, to-wit, the premises described in Paragraph XII of plaintiff's complaint herein, were compromised; and plaintiff specifically denies that it was stated and/or agreed in said instrument that the grant of said Tideland Location 152 by the Banning Company to the City of Los Angeles was made in consideration of any covenant for the dismissal of said Cause No. 64,540. Plaintiff admits, denies and alleges, as it has hereinabove admitted, denied and alleged, the allegations of Paragraph II in defendants' first separate defense and counterclaim incorporated as a part of defendants' third separate defense and counterclaim. Plaintiff denies that by reason of and pursuant to the terms of said agreement of July 24, 1917, said Cause No. 64,540 was by order of said Superior Court on the 6th day of August, 1917, dismissed, and denies that said cause was dismissed for any reason other than the stipulation that

said cause be dismissed without prejudice to the bringing of another action for the same cause as mentioned in Paragraph I hereof.

Plaintiff denies that said agreement of July 24, 1917, operated as a retraxit and/or constituted an abandonment by the City of Los Angeles of its claims to the whole or any portion of the land described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling in of said tide land by artificial means or the hand of man on or about the years 1908 and 1909. Plaintiff denies that said agreement constituted an agreement that no portion of the land lying within the lines of said patent to William Banning was situated below the line of ordinary high tide or constituted tide land, and denies that there was merged in said agreement and/or said dismissal of said Cause No. 64,540 all or any claim of the City of Los Angeles in and to the land described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling in of said tide land by artificial means or the hand of man on or about the years 1908 and 1909. Plaintiff denies that the order of dismissal of said Cause No. 64540 operated under the laws of the State of California, or of the United States, as a judgment on the merits, and denies that the said order is a bar to the maintenance of this suit, and denies that the said order is an estoppel with respect to

each or any of the issues raised by the complaint herein.

Plaintiff alleges that neither on said July 24, 1917, nor at any other time, did plaintiff have any power or authority to abandon any portion of the land described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling in of said tide land by artificial means or the hand of man on or about the years 1908 and 1909; alleges that plaintiff had no power or authority to agree that no portion of said land lying below said line of ordinary high tide constituted tide land, and alleges that any agreement for the abandonment of said tide land, or any agreement that said tide land did not constitute tide land would been void and of no effect and would have been contrary to the Constitution of the State of California in force on said July 24, 1917, in that said Constitution, in Section 3 of Article XV, provides as follows:

"All tide lands within two miles of any incorporated city or town in this state, and fronting on the waters of any harbor, estuary, bay, or inlet, used for the purposes of navigation, shall be withheld from grant or sale to private persons, partnerships, or corporations,"

and in that the land described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling in of said tide land by artificial means or the hand of man on or about the years 1908 and 1909 was within two miles of an in-

corporated city of the State of California, and said tide land fronted on the waters of a harbor, estuary, bay, or inlet, to-wit, the Harbor of Los Angeles, otherwise known as the Harbor of San Pedro, or Bay of San Pedro, and said tide land was then being and always has been used for the public uses and purposes of navigation.

III.

For reply to the allegations contained in Paragraph III of the third separate defense and counterclaim of the answer, plaintiff denies that said Banning Company and/or said Hancock Banning conveyed to defendant Title Insurance and Trust Company, and denies that Title Insurance and Trust Company conveyed to Borax Consolidated Limited any part of the property described in Exhibit "B" of the answer, as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling in of said tide land by artificial means or the hand of man on or about the years 1908 and 1909; and denies that said Borax Consolidated Limited is now the owner and/or holder of said tide land, or any part thereof.

For lack of information and belief, plaintiff denies that defendants William P. Banning, Katherine Stewart Banning Joseph B. Banning, Jr., Katharine Banning Graves and John C. Marfarland as Executor of the Last Will and Testament of Hancock Banning, deceased, have since the commencement of this action, or at any time, executed and delivered to the defendant Borax Consolidated Lim-

ited a quitclaim or any deed conveying to defendant Borax Consolidated Limited any part of the land described in Exhibit "C" annexed to said answer as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary high tide surrounding Mormon Island as said line of ordinary high tide existed prior to the filling in of said tide land on or about the years 1908 and 1909.

Plaintiff denies that defendant Borax Consolidated Limited is the owner in fee or otherwise of any part of the land described in said Exhibit "B" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of mean high tide as said line existed in its natural state, and denies that said defendant is in possession of any part of said tide land and denies that said defendant is the owner of any part of the land described in said Exhibit "C" as described in Paragraph XII of the complaint, the same being tide land as before mentioned. Plaintiff admits that plaintiff makes a claim of title adverse to defendant Borax Consolidated Limited to that portion of the lands described in said Exhibits "B" and "C" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling in of said tide land by artificial means or the hand of man on or about the years 1908 and 1909; and admits that plaintiff claims that the property described in Paragraph XII of plaintiff's complaint herein is tide land. Plaintiff denies that said claim is without right, and denies that defendant Borax Consolidated Limited is entitled

to a decree quieting title as against the claims of plaintiff to any part of the above mentioned and described land, and denies that said defendant is entitled to have it adjudged that said defendant is the absolute owner in fee simple, or otherwise, of any part of the premises described in said Exhibits "B" and "C" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling in of said tide land by artificial means or the hand of man on or about the years 1908 and 1909.

## REPLY TO FOURTH SEPARATE DEFENSE AND COUNTERCLAIM.

I.

For reply to the allegations contained in Paragraph I of the fourth separate defense and counterclaim of the answer, plaintiff admits that an island known as Mormon Island was in existence prior to the admission of the State of California into the Union, on September 9, 1850, and that said island was and is located within the Inner Bay of San Pedro in the State of California, and was and is surrounded by navigable waters. Plaintiff denies that said island at said time, or at any other time, had an area of more than, or of, eighteen acres, or had an area of more than five acres. Plaintiff admits that said island, but not of an area of more than five acres, constituted a part of the public lands of the United States on and prior to September 9, 1850, and at all times thereafter, but denies that any more than five acres

constituted a part of the public lands of the United States on and prior to September 9, 1850, or at any other time. Plaintiff admits that the United States prior to September 9, 1850 owned all tide lands within the present boundaries of the State of California. Plaintiff admits that upon the admission of said State to the Union, title to all tide lands surrounding Mormon Island vested in the State of California and there remained until the first day of May, 1911. Plaintiff admits that on said May 1, 1911, the Legislature of the State of California granted to plaintiff, The City of Los Angeles, all of the right, title and interest which the State of California then held by virtue of its sovereignty in and to any and all tide lands, as the same then existed within the then boundaries of the City of Los Angeles.

II.

For reply to the allegations contained in Paragraph II of said fourth separate defense and counterclaim of the answer, plaintiff admits that the line of ordinary high tide constitutes, and at all times has constituted, the boundary between upland and tide land, and admits that the same, whether designated as the line of ordinary high tide or the line of mean high tide, shifts and changes, but only imperceptibly and little by little, from day to day, and has always done so, except where said line of ordinary or mean high tide and the land lying below said line has been filled in or covered up by artificial means or the hand of man. Plaintiff admits that said line of ordinary or mean high tide, but only as said line of ordinary or mean high tide existed in its natural states, constituted the boundary line between that portion of the pub-

lic domain of the United States known as Mormon Island and the tide lands of the State of California adjoining the same at all times from September 9, 1850, to December 30, 1881, and thereafter.

Plaintiff denies that because of existing or any uncertainty as to the true boundary between their lands, and denies that in order to avoid disputes between the said State of California and the United States as to the location of the boundary line or the line of ordinary or mean tide and as to the title to any new land which might be created by accretion or reliction, whether caused by artificial or natural means, the said United States of America and said State of California between the 9th day of September, 1850, and the 30th day of December, 1881, or at any time, did agree upon and establish as the true fixed and/or permanent boundary, or any other boundary line, between the upland belonging to the United States and the tide land belonging to the State of California, that certain line which was surveyed by W. H. Norway, Deputy United States Surveyor, pursuant to contract dated March 10, 1883, made with Theodore Wagner, as Surveyor-General of the United States in California, as the boundary line of said Mormon Island, which was surveyed and reported by him to be the line of ordinary high tide surrounding said island, and which is particularly described in the field notes and shown on the Plat of Survey, approved August 26, 1880, and filed in the offices of said Surveyor-General and of the General Land Office in the Department of the Interior of the United States. Plaintiff denies that the said Norway survey was a correct survey of the upland or public land

of Mormon Island, and denies that said survey was approved in so far as the land described in Paragraph XII of the complaint is concerned. Plaintiff denies that any part of the land described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide existed in its natural state was conveyed to William Banning by the patent copy of which is annexed to the answer marked Exhibit "A", and denies that the above described tide land was conveyed to defendant by the instrument copy of which is annexed to the answer marked Exhibit "B". Plaintiff denies that the United States did any dredging as a part of the creation of the deep water harbor at San Pedro, California, in and around said island under and pursuant to any agreement as to the boundary line between the upland and the tide land surrounding said island, and denies that any boundary line between the upland and tide land surrounding Mormon Island has been recognized, accepted and/or acted upon by the United States and/or the State of California as the true, correct and/or permanent boundary line between said upland and said tide land.

III.

For reply to the allegations contained in Paragraph III of said fourth separate defense and counterclaim of the answer, plaintiff denies that any part of Lot 1, Section 8, Township 5 South, Range 13 West, San Bernardino Meridian, described in Paragraph XII of the complaint was ever upland of Mormon Island, and denies that any part of the land described in Paragraph XII of the complaint, the same being tide land lying below the line

of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state, was conveyed by the United States to William Banning by that certain Patent of December 30, 1881, marked Exhibit "A" and attached to the answer of said defendants. Plaintiff denies that defendant Borax Consolidated Limited became the owner in fee, or otherwise, of any portion of said Lot 1 described in Exhibit "B" attached to said answer as is described in Paragraph XII of the complaint, the same being the above mentioned tide land, and denies that said tide land has always, or at any time, constituted upland. Plaintiff makes the same denials as it has heretofore made in reply to Paragraph II of the first separate defense and counterclaim.

IV.

In reply to the allegations contained in Paragraph IV of defendants' fourth separate defense and counterclaim of the answer, plaintiff denies that defendant Borax Consolidated Limited is the owner in fee, or otherwise, of any part of the land described in said Exhibit "B" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to its filling-in by artificial means or the hand of man on or about the years 1908 and 1909.

For lack of information and belief plaintiff denies that defendant Borax Consolidated Limited is in possession of the land described in Paragraph XII of the complaint. Plaintiff admits that it makes claim of title adverse to

defendant Borax Consolidated Limited to all that portion of the land described in said Exhibit "B" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide existed in its natural state prior to its filling-in by artificial means or the hand of man on or about the years 1908 and 1909, and claims and asserts that said land is tide land. Plaintiff denies that its said claim is without right and denies that defendant Borax Consolidated Limited is entitled to a decree quieting title as against the claim of plaintiff to any part of said tide land, and denies that said defendant is entitled to *to* have it adjudged that said defendant is the absolute owner in fee simple, or otherwise, of any part of the above mentioned tide land.

## REPLY TO FIFTH SEPARATE DEFENSE AND COUNTERCLAIM.

### I.

For reply to the allegations contained in Paragraph I of the fifth separate defense and counterclaim of the answer, plaintiff admits that an island known as Mormon Island was in existence prior to the admission of the State of California into the Union on September 9, 1850, and was and is located within the Inner Bay of San Pedro in the State of California and surrounded by navigable waters; but denies that the upland of said island has or at any time has had an area of more than, or of, eighteen acres, and denies that it has ever had an area of

more than five acres. Plaintiff admits that said island having, however, not to exceed an area of five acres, constituted a part of the public lands of the United States on and prior to September 9, 1850, and at all times thereafter. Plaintiff admits that the United States, prior to September 9, 1850, owned all tide lands within the boundaries of the present State of California, and that upon the admission of said state to the Union, title to all tide lands surrounding said Mormon Island vested in said state by virtue of its sovereignty and there remained until the 1st day of May, 1911; that upon said last mentioned day, by an Act of the Legislature of the State of California, said state granted to the City of Los Angeles all of the right, title and interest which said State then had by virtue of its sovereignty in and to any and all tide lands as the same then existed between the then boundaries of the City of Los Angeles.

Plaintiff denies that defendant Borax Consolidated Limited is or at any time since May 3, 1923, or at any other time, has been the owner of any part of the lands described in Exhibit "B" annexed to the answer herein, as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary or mean high tide existed in its natural state prior to the filling-in of the tide land below said line of ordinary high tide by artificial means or the hand of man on or about the years 1908 and 1909, and denies that the above mentioned tide land has always or at any time constituted upland. Plaintiff denies that defendant Borax Consolidated Limited has acquired by mesne conveyances or otherwise any right, title and/or interest of the Banning Company, a corporation, or any

other person, in or to the above mentioned tide land, and denies that said Banning Company ever had any right, title and/or interest therein.

II.

For reply to Paragraph II of said fifth separate defense and counterclaim of the answer, plaintiff admits that the line of ordinary high tide, but only in its natural state, constitutes the boundary between upland and tide land; admits that the same, whether designated as the line of ordinary high tide or the line of mean high tide, but only in its natural state shifts and changes but only imperceptibly and little by little from day to day, and has always done so. Plaintiff admits that the line of ordinary or mean high tide, but only in its natural state, constituted the boundary line between the land of the owner of the upland of Mormon Island and the tide land below, but denies that defendant Borax Consolidated Limited ever has been the owner of that part of the land described in Exhibit "B" attached to its answer, as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide as said line of ordinary high tide existed in its natural state prior to the filling-in of the tide land below said line of ordinary or mean high tide by artificial means or the hand of man on or about the years 1908 and 1909. Plaintiff denies that because of existing or any uncertainties as to the true boundary between said land, and in order to avoid dispute and/or litigation between plaintiff and the defendant Banning Company, a corporation, as to the location of the boundary line between the tide land and the upland of Mormon Island and as to the title to any new lands which might be created by

accretion or reliction, whether caused by artificial or natural means, or otherwise, or for any other reason, plaintiff and said Banning Company, prior to May 3, 1923, or at any time, did agree upon and establish as a true and/or fixed and/or permanent boundary line, or any boundary line, between the lands then belonging to said Banning Company and the tide land belonging to the City of Los Angeles, that certain line which was surveyed by W. H. Norway, Deputy United States Surveyor, pursuant to contract dated March 10, 1880, made with Theodore Wagner as Surveyor-General of the United States for California, as the boundary line of said Mormon Island, which was surveyed and reported by him to be the line of ordinary high tide surrounding said island and which is particularly described in the field notes and shown on plat of said survey filed in the offices of the Surveyor-General and of the General Land Office in the Department of the Interior, and denies that said Norway established any line of ordinary or mean high tide, and denies that any survey of said Mormon Island was approved at any time; and denies that any line has been agreed upon and/or established as a true and/or fixed and/or permanent boundary line between the tide land surrounding Mormon Island and the upland of Morman Island, and denies that the land described in Paragraph XII of the complaint belongs to defendant Borax Consolidated Limited. Plaintiff denies that the line mentioned in said Paragraph II is the line according to which Mormon Island was conveyed to William Banning, by patent copy of which is annexed to the answer, marked Exhibit "A", and denies that any part of the land described in Paragraph XII of the complaint was conveyed to defend-

ant Borax Consolidated Limited by deed copy of which is annexed to the answer, marked Exhibit "B." Plaintiff denies that the line mentioned and referred to in said Paragraph II of said fifth separate defense and counterclaim has been at all times since the making of said agreement or any agreement or at any time recognized, accepted and/or acted upon by plaintiff, the City of Los Angeles, as the true, correct and/or permanent or any boundary line between the upland of Morman Island and the tide land of Morman Island, said tide land being the land described in Paragraph XII of the complaint, and lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling-in of said tide land by artificial means or the hand of man. Plaintiff denies that pursuant to said or any agreement, said defendants and/or their predecessors in interest have improved any part of the premises described in Exhibit "B" annexed to said answer, as is described in Paragraph XII of the complaint, with the knowledge and/or consent of plaintiff or at all, and denies that they have with the knowledge of and/or consent of plaintiff or at all constructed permanent buildings, wharves and/or other improvements on the property described in Paragraph XII of plaintiff's complaint herein, of the value of $1,000,000.00, or of any value; denies that they or any of them have fenced to an agreed or any boundary lines. For lack of information and belief, plaintiff denies that any improvements have been constructed upon said property described in Paragraph XII of the complaint by said defendants or any of them, and denies that said defendants or any of them for a long or any time past and/or

now occupy the land described in Paragraph XII of the complaint. Plaintiff denies that plaintiff, the City of Los Angeles, has at all times or at any time acquiesced in any of the acts alleged in said paragraph as having been done by said defendants pursuant to agreement or at all, and denies that the plaintiff has ever agreed thereto. Plaintiff denies that by reason of any agreement and/or any acts of said defendants and/or the acquiescence of plaintiff therein, and/or by any reason of any acts of plaintiff, the line as surveyed by said Norway has become and/or is and/or was at the time of the commencement of this action, or at any other time, the true boundary line between the land of said defendants and the tide lands of plaintiff.

III.

For reply to the allegations in Paragraph XII of said fifth separate defense and counterclaim of the answer, plaintiff denies that defendant Borax Consolidated Limited is the owner in fee or at all of that part of the real property described in said Exhibit "B" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling-in of the tide land below the said line by artificial means or the hand of man, and denies that defendant Borax Consolidated Limited is in possession thereof. Plaintiff denies that the upland of Mormon Island is bounded by any agreed boundary line as alleged in the paragraph last above mentioned. Plaintiff admits that plaintiff makes claim of title adverse to said defendants

and claims that the land described in Paragraph XII of its complaint herein is tide land. Plaintiff denies that its said claim is without right, and denies that defendant Borax Consolidated Limited is entitled to a decree quieting title as against plaintiff, and denies that said defendant is entitled to have it adjudged that said defendant is the absolute owner in fee or otherwise of any part of the premises described in said Exhibit "B" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling-in by artificial means or the hand of man of the tide land below said line of mean or ordinary high tide.

## REPLY TO SIXTH SEPARATE DEFENSE AND COUNTERCLAIM.

### I.

For reply to the allegations contained in Paragraph I of the sixth separate defense and counterclaim of the answer, plaintiff admits that an island known as Mormon Island was in existence prior to the admission of the State of California into the Union on September 9, 1850, and was and is located within the Inner Bay of San Pedro, State of California, and was and is surrounded by navigable waters, but denies that the upland of said island constituted more than, or, eighteen acres, or more than five acres. Plaintiff admits that said upland, but of an area of not more than five acres, constituted a part of the public lands of the United States on and prior to September 9, 1850, and at all times thereafter. Plaintiff

admits that the United States, prior to said September 9, 1850, owned all tide lands within the boundaries of the present State of California. Plaintiff admits that upon the admission of the State to the Union title to all tide lands surrounding the island known as Mormon Island vested in said State by virtue of its sovereignty, and there remained until the first day of May, 1911, and admits that on said last mentioned date a certain Act of the Legislature of the State of California granted to the City of Los Angeles all of the right, title and interest which the State of California then had by virtue of its sovereignty in and to any and all tide lands, as the same existed within the then boundaries of the City of Los Angeles. Plaintiff denies that defendant Borax Consolidated Limited is, or at any time has been the owner of any part of the land described in Exhibit "B" annexed to said answer, as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling-in by artificial means or the hand of man of the tide land below said line of ordinary high tide, and denies that any part of the land described in Paragraph XII of the complaint ever constituted upland.

II.

For reply to the allegations contained in Paragraph II of said sixth separate defense and counterclaim of the answer, plaintiff admits that the line of ordinary or mean high tide, but only in its natural state, constitutes the boundary line between upland and tide land; that the

same, whether designated as the line of ordinary high tide or the line of mean high tide, but only in its natural state, shifts and changes, but only imperceptibly and little by little, from day to day, and has always done so. Plaintiff denies that any line other than the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the tide land below said line of ordinary high tide constitutes a boundary line between the upland of defendant Borax Consolidated Limited, being a part of the land described in said Exhibit "B" and the tide land of the City of Los Angeles. Plaintiff denies that because of existing or any uncertainties as to the true boundary line between the tide land of plaintiff and the land of defendant Borax Consolidated Limited and/or in order to avoid disputes and/or litigations between plaintiff and said defendant as to the location of any boundary line and/or as to title to any new lands which might be created by accretion or reliction, whether caused by artificial or natural means, or for any reason, the parties hereto, to-wit, plaintiff and said answering defendants, subsequently to May 3, 1923, or at any other time, did agree upon and/or establish as the true, fixed and/or permanent or any boundary line between land belonging to said defendant and tide lands belonging to plaintiff, that certain or any line which was surveyed by W. H. Norway, Deputy United States Surveyor, pursuant to contract dated March 10, 1880, made with Theodore Wagner, as Surveyor-General of the United States for California, as the boundary line of said Mormon Island, which was surveyed and reported by him to be the line of ordinary high

tide surrounding said island, and which is described in the field notes and shown on the Plat of said Survey, and filed in the offices of the Surveyor-General and of the General Land Office in the Department of the Interior of the United States, and denies that said Norway established any line as the line of ordinary or mean high tide, and denies that any survey thereof was approved, and denies that plaintiff and said defendant did agree upon and/or establish any line as the true, fixed and/or permanent or any boundary line between land belonging to said defendant and tide land belonging to plaintiff, and denies that the line mentioned in said paragraph is the line according to which Mormon Island was conveyed to William Banning; and denies that any part of the land described in the patent, copy of which is annexed to the answer marked Exhibit "A" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state, was conveyed to said Banning, and denies that any part of the land described in said Exhibit "B" as is described in said Paragraph XII of the complaint was conveyed to said defendant. Plaintiff denies that pursuant to any agreement said defendants have placed improvements upon that part of the premises described in said Exhibit "B" as is described in Paragraph XII of the complaint with knowledge and/or consent of plaintiff. For lack of information and belief, plaintiff denies that said defendants have constructed certain buildings or structures upon the property described in Paragraph XII of plaintiff's complaint herein of the value of $1,000,000.00, or of any

value, and denies that said defendants have fenced to an agreed or any boundary line, and denies that they have improved said land. Plaintiff denies that for a long, or any time past, said defendants have or any of them has occupied or now occupy to any agreed boundary line, or any part of the land described in Paragraph XII of the complaint. Plaintiff denies that plaintiff has at all times or at any time acquiesced in all or any of the acts done by defendants alleged in said last mentioned paragraph, or pursuant to any agreement with plaintiff. Plaintiff denies that pursuant to any agreement, or any acts of defendants, or any acquiescence of plaintiff, the alleged boundary line has become, or is or was at any time, the true boundary line between the land of defendants and the tide land of the plaintiff, and plaintiff denies that plaintiff has acquiesced in any boundary line between said lands.

III.

For reply to the allegations contained in Paragraph III of said sixth separate defense and counterclaim of the answer, plaintiff denies that defendant Borax Consolidated Limited is the owner in fee, or otherwise, of any part of the property described in said Exhibit "B" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the tide lands lying below said line of ordinary high tide. Plaintiff denies that the upland of Mormon Island is bounded by any agreed boundary line. Plaintiff

admits that plaintiff makes claim of title adverse to said defendants to the tide land above described, and admits that plaintiff claims that the land described in Paragraph XII of its complaint herein is tide land. Plaintiff denies that said claim is without right, and denies that defendant Borax Consolidated Limited is entitled to a decree quieting title as against plaintiff and/or to have it adjudged that said defendant is the absolute owner in fee simple, or otherwise, of any part of the premises described in said Exhibit "B", as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Morman Island, as said line of ordinary or mean high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the tide land below said line of ordinary high tide.

## REPLY TO SEVENTH SEPARATE DEFENSE AND COUNTERCLAIM.

### I.

In reply to the allegations contained in Paragraph I of said seventh separate defense and counterclaim of the answer, plaintiff denies that plaintiff has been active in causing and/or bringing about, or has caused and/or brought about dredging in Mormon Island. Plaintiff denies that either the State of California or the plaintiff caused or permitted the government of the United States and/or others in dredging deep water channels, to deposit earth and/or other materials upon said Mormon Island Plaintiff admits that the level of Mormon Island and that part of the land described in said Exhibit "B" lying below the line of ordinary high tide surrounding Mormon

Island as said line of ordinary high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the tide land lying below said line of high tide, has been raised above the level of said mean or ordinary high tide line, but denies that plaintiff has been active in causing and/or bringing about or had caused and/or brought about the raising of the level of the upland of Mormon Island. Plaintiff denies that it has expressly, or otherwise, permitted said defendant or any one to erect, occupy or operate factories, warehouses, offices and/or other buildings upon the land described in Paragraph XII of the complaint. Plaintiff admits that such filling-in has operated to change the topography of said tide lands surrounding Mormon Island claimed by plaintiff, and admits that said tide land was filled-in on the lines above the line of highest high tides, but plaintiff denies that said tide land has been rendered unfit for use for navigation purposes or for fishery purposes or as tide land, and plaintiff denies that said State or plaintiff has intentionally or otherwise abandoned all or any usage of said tide land as tide land, and denies that the title thereto by virtue of any acts or omissions of plaintiff or of defendants or any conveyances, or any abandonment, has passed to and/or vested in defendant Borax Consolidated Limited, or any one else.

Plaintiff alleges that said tide land surrounding Mormon Island lying below the line of ordinary or mean high tide as said line of ordinary high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of said tide land, has been filled in by artificial means and not by nature, so that said natural line

of ordinary or mean high tide as it so existed has been covered up, and said land now is filled-in tide land.

II.

In reply to the allegations contained in Paragraph II of said seventh separate defense and counterclaim of the answer, plaintiff denies that any part of the land described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the tide land below said line of mean or ordinary high tide, was granted or patented to William Banning by patent of the United States, set forth as Exhibit "A" of said answer; and denies that defendant Borax Consolidated Limited, by mesne conveyances or otherwise, acquired any title or interest in and to any part of the land described in said Exhibit "B" as is described in said Paragraph XII of the complaint, and denies that William Banning or Title Insurance and Trust Company ever had any title thereto.

III

In reply to the allegations contained in Paragraph III of said seventh separate defense and counterclaim of the answer, plaintiff reiterates the denials, admissions and allegations that it has made as to the allegations contained in Paragraph III of the sixth separate defense and counterclaim and paragraphs I and II of the seventh separate defense and counterclaim.

## REPLY TO THE EIGHTH SEPARATE DEFENSE AND COUNTERCLAIM.

I.

For reply to the allegations contained in Paragraph I of the eighth separate defense and counter claim of the answer, the same being purely argumentative requires no answer, but for lack of information and belief plaintiff denies the allegations in lines 20 to 24 thereof.

II.

In reply to Paragraph II of said eighth separate defense and counterclaim of the answer, plaintiff denies that no portion of the premises described in Exhibit "B" annexed to the answer is or was at any time situated below the line of ordinary or mean high tide, and denies that no portion of the same constituted or constitutes tide land. Plaintiff alleges that all that portion of the land described in said Exhibit "B" as is described in Paragraph XII of the complaint, is tide land, and lies below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state prior to the filling-in by artificial means or the hand of man of the land below said line of ordinary or mean high tide, has since September 9, 1850, and up to May 1, 1911, constituted tide land belonging to the said State of California, and since said May 1, 1911, has constituted tide land, filled and unfilled, belonging to plaintiff.

Plaintiff denies that more than ten years prior to the commencement of this action, or at any time, defendant Banning Company, or any other defendant, or any one,

entered upon and/or made improvements upon or occupied that portion of land described in said Exhibit "B" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the land below said line of ordinary or mean high tide.

Plaintiff denies that Ralph Chandler Company, a corporation, entered upon the said tide land and/or occupied and/or improved the same. Plaintiff denies that defendant Borax Consolidated Limited by mesne conveyances or otherwise acquired any right, title and/or interest of Banning Company and/or Ralph Chandler Company in any part of the land described in said Exhibit "B" as is described in Paragraph XII of the complaint, and denies that said Banning Company and/or said Ralph Chandler Company ever had any right, title and/or interest therein or thereto.

Plaintiff denies that defendant Borax Consolidated Limited placed thereon certain or any improvements and/or occupied or occupies the same. Plaintiff denies that for more than ten years prior to the commencement of this action or for any time that certain portion of the land described in said Exhibit "B" as is described in Paragraph XII of plaintiff's complaint has been continuously or otherwise in the possession of defendant Borax Consolidated Limited, or its predecessors in interest, or any defendant. Plaintiff denies that taxes have been levied and/or assessed on said tide lands, and denies that any taxes on said tide lands have been paid by said de-

fendant and/or its predecessors in interest or by any one else. Plaintiff denies that any possession of said tide land by said defendant or its predecessors in interest has been with the full or any knowledge of plaintiff, and denies that any possession by any of said defendants of said tide lands has been open, notorious and/or adverse to the State of California, and/or to the plaintiff, or to the world. Plaintiff denies that the cause of action in its complaint set forth accrued more than ten years prior to the commencement of this action. Plaintiff denies that its cause of action is barred by Section 315 and/or 316 of the Code of Civil Procedure of said State of California or by any law of said State. Plaintiff denies that defendant Bor[illegible] Consolidated Limited has acquired by adverse possession good or any title to any portion of the land described in said Exhibit "B" as is described in Paragraph XII of the complaint, the same being tide land lying below the line of mean or ordinary high tide surrounding Mormon Island as said line of mean or ordinary high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the tide land below said line of mean or ordinary high tide. Plaintiff denies that plaintiff's cause of action is barred by laches or by failure to commence action to quiet title to said tide lands described in Paragraph XII of its complaint herein for more than ten years after said cause of action accrued, and denies that said cause of action accrued more than ten years prior to the commencement of this suit.

## REPLY TO NINTH SEPARATE DEFENSE AND COUNTERCLAIM.

### I.

For reply to the allegations contained in Paragraph I of said ninth separate defense and counterclaim of the answer, plaintiff denies that on the 30th day of December, 1881, or at any time, that part of the land described as Lot 1, Section 8, Township 5 South, Range 13 West, San Bernardino Meridian, described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed in its natural state were or any part thereof was public land of the United States, and denies that said lands were or any part thereof was above the line of ordinary or mean high tide.

### II.

For reply to the allegations contained in Paragraph II of said ninth separate defense and counterclaim of the answer, plaintiff denies that any portion of Lot 1, of Section 8, Township 5 South, Range 13 West, San Bernardino Meridian, described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide existed on December 30, 1881, and as said line of ordinary high tide existed in its natural state, were duly, or otherwise, granted and/or patented by the United States to defendant William Banning, by that certain instrument, copy of which is annexed to said answer, marked Exhibit "A", or

by any other instrument. Plaintiff denies that the upland of Mormon Island is legally and/or correctly described as Lot 1, Section 8, Township 5 South, Range 13 West, San Bernardino Meridian. Plaintiff denies that defendant Borax Consolidated Limited has become or is the owner by mesne conveyance or otherwise of any part of the land described in said Exhibit "B", as is described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the land below the line of said ordinary or mean high tide. Plaintiff denies that at the time of the issuance of said patent defendant William Banning was in the open and/or notorious possession of the tide land hereinabove mentioned and described in Paragraph XII of the complaint, and denies that he was actually using the same, and denies that at all times or at any time since the issuance of said patent said William Banning and/or his successors in interest have been in open and/or notorious possession of said tide land described in Paragraph XII of the complaint, or have actually used the same, and for lack of information and belief denies that they or any of them have erected and/or constructed various structures and/or buildings thereon. For lack of information and belief plaintiff denies that defendant William Banning, and/or his successors in interest, have dredged a portion of the land above mentioned and described and/or have filled in portions of the above mentioned tide land. Plaintiff denies that said William Banning, and/or his successors in interest, including the answering defendants, have paid

any taxes upon said tide land; denies that plaintiff, the City of Los Angeles, at any time has assessed the above mentioned tide land to defendants or their predecessors in interest.

III.

For reply to the allegations contained in Paragraph III of the ninth separate defense and counterclaim of the answer, plaintiff denies the allegation that "all of said acts hereinbefore set forth were done with the full knowledge and consent of the State of California and the City of Los Angeles, but without objection upon the part of said State of California or City of Los Angeles," and denies that any of the alleged acts were done with the knowledge and/or the consent or without objection of said State or plaintiff. Plaintiff denies that in the year 1894, or at any time, William Banning conveyed the whole or any part of the land described in Paragraph XII of the complaint to Banning Company, or to any one, and denies that thereafter said Banning Company conveyed the same or a portion thereof to Hancock Banning, and denies that said William Banning conveyed the remainder thereof, being the land described in the complaint herein, to J. B. Banning, and denies that Borax Consolidated Limited is the successor in interest to said land described in Paragraph XII of the complaint. Plaintiff denies that on or about December 15, 1892, or at any other time, plaintiff purchased from Hancock Banning or from any one any portion of the land described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide in its natural

state existed prior to the filling-in of the land lying below said line of ordinary or mean high tide by artificial means or the hand of man.

IV.

For reply to the allegations contained in Paragraph IV of said ninth separate defense and counterclaim of the answer, plaintiff denies that on or about the third day of May, 1923, or at any other time, the devisees of J. B. Banning conveyed, or any one caused to be conveyed, or conveyed to defendant Borax Consolidated Limited any portion of the land described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the land lying below said line of ordinary mean high tide, lying north of the upland of Mormon Island conveyed to the City of Los Angeles. Plaintiff denies that the alleged survey of W. H. Norway, or said Norway, ever established the boundary of Mormon Island or the line of mean or ordinary high tide surrounding same. Plaintiff denies that the City of Los Angeles did permit and/or consent to the, or any, improvement of any part of the land alleged to have been conveyed to defendant Borax Consolidated Limited as described in Paragraph XII of the complaint, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the land lying below said line of ordinary or mean high tide.

V.

For reply to the allegations contained in Paragraph V of said ninth separate defense and counterclaim of the answer, plaintiff denies plaintiff did induce defendants William P. Banning, Katharine Stewart Banning, Joseph B. Banning, Jr., and Katharine Banning Graves, or any of them, to convey to plaintiff a certain, or any, leasehold interest of the reasonable market value in excess of one hundred thousand dollars, or any sum, in consideration of plaintiff's agreeing to improve for any consideration the southerly and easterly portions, or any part, of the land described in Paragraph XII of the complaint in Cause No. Q-13-H herein, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the land lying below said line of ordinary or mean high tide, for the purpose of allowing and/or permitting said defendants to locate and/or construct piers and/or wharves over and/or structures upon all that portion of said island lying south of the parcel of land conveyed by Hancock Banning to plaintiff, or for any purpose, and/or permitting the construction of same to the United States pierhead line southerly and easterly of said line, or for any purpose. Plaintiff denies that defendants Banning were then, or at any time, the owners of all, or any portion, of the land described in Paragraph XII of the complaint herein, or of the land described in Paragraph IX of the complaint in said Cause No. Q-13-H, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean

high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the land lying below said line of ordinary or mean high tide, and denies that they were the owners, or any of them was the owner, of any part of the land described in Exhibit "B" as is described in Paragraph XII of the complaint herein, the same being tide land lying below the line of ordinary or mean high tide surrounding Mormon Island as said line of ordinary or mean high tide in its natural state existed prior to the filing-in by artificial means or the hand of man of the land lying below said line of ordinary high tide. Plaintiff denies that plaintiff has not made and/or asserted claim to any portion of the land within the boundaries of said Norway survey; denies that said Norway established any survey of the upland of Mormon Island, denies that plaintiff has not made and/or asserted claim to the land described in Paragraph XII of the complaint, and denies that plaintiff knew that if said claim were made or established defendants Banning would not have conveyed said leasehold interest or any part thereof, and denies that plaintiff knew that if the claim made and/or asserted by the complaint herein should be established defendants Banning would not receive or have any benefit or consideration for the erection of said bulkhead or retaining wall.

VI.

In reply to the allegations contained in Paragraph VI of said ninth separate defense and counterclaim of the answer, plaintiff denies that plaintiff did in accordance or under the terms of said agreement allow and/or permit defendants Banning to fill any lands lying below the line

of ordinary high tide surrounding Mormon Island as said line of ordinary high tide in its natural state existed prior to the filling-in by artificial means or the hand of man of the land lying below said line of ordinary high tide, being the lands described in Paragraph IX of plaintiff's complaint in said Cause No. Q-13-H. Plaintiff denies that plaintiff has not maintained and/or asserted its right, title and interest to the lands described in Paragraph IX of the complaint in Cause No. Q-13-H pending in this Court, or to those lands described in Paragraph XII of its complaint herein. Plaintiff denies that plaintiff did induce defendants Banning to believe and/or contract with plaintiff in the belief that plaintiff neither made nor claimed right, title or interest to the lands described in said Paragraph IX of its complaint in said Cause No. Q-13-H and the lands described in Paragraph XII of the complaint herein. Plaintiff denies that plaintiff did not claim that said defendants did not have the full and/or unconditional right to use the land described in complaints in this cause and said Cause No. Q-13-H or to erect and/or construct piers and/or wharves thereon. Plaintiff denies that it has not made or asserted claim to the lands described in the complaints in said causes since the conveyance of said leasehold interest and prior to the commencement of said actions. The allegation contained in lines 20 to 33, page 52 of the answer, being purely argumentative, require no answer, but plaintiff, for lack of information, denies the allegations contained in lines 30 to 33.

VII.

For reply to the allegations contained in Paragraph VII of said ninth separate defense and counterclaim of the answer, plaintiff denies that by reason of any of the alle-

gations contained in said ninth separate defense and counterclaim or of any part of the answer, it has been guilty of laches, and denies that plaintiff is estopped from the maintenance or prosecution of this suit.

VIII.

For answer to the allegations contained in Paragraph VIII of said ninth separate defense and counterclaim of the answer, plaintiff reiterates the denials in this reply made to Paragraph V of the first separate defense and counterclaim contained in said answer.

WHEREFORE, plaintiff prays, as it has heretofore in its complaint herein prayed.

Erwin P. Werner
ERWIN P. WERNER,
City Attorney,

Clyde M. Leach
Clyde M. Leach,
Assistant City Attorney,

Joseph T. Watson
Joseph T. Watson,
Deputy City Attorney,

Solicitors for Plaintiff.

Verified.

[Endorsed]: Received copy of the within Reply this 8th day of April, 1930. Newlin & Ashburn Attorneys for Borax Cons. Limited, Pac. Coast Borax, a Nevada corporation. Filed Apr. 9, 1930. R. S. Zimmerman, Clerk. By Edmund L. Smith, Deputy Clerk.

[TITLE OF COURT AND CAUSE.]

Memorandum Decision.

COSGRAVE, District Judge.

The City of Los Angeles brings suit against defendants wherein it seeks to quiet title to portions of Mormon Island located in Los Angeles Harbor, claiming the same as tide land. The plaintiff claims title by legislative grant from the state which, on its admission to the Union, was vested with title to all tide lands by virtue of its sovereignty. The island itself comprises some eighteen acres. The central portion is conceded by the plaintiff to be land originally belonging to the public domain but plaintiff claims that the northerly and southerly portions respectively are below the line of high tide and therefore the property of the plaintiff.

The plaintiff introduced evidence from which the conclusion might be drawn that the land in question is below the line of ordinary high water mark.

The pleadings admit that the entire island was included in a United States patent issued to defendants' predecessor in interest pursuant to a pre-emption entry and was surveyed as public land open to entry; the survey duly filed and proof made of the character of the land and United States patent issued; that all proceedings done and had before the land department were sufficient to vest title in defendants' predecessor in interest, but plaintiff denies the effect of these proceedings on the ground that the land was not part of the public domain.

The question presented therefore is whether or not, these facts being conceded, the validity of the United States patent can be thus collaterally questioned.

It is conceded that tide lands are the property of the state, not a part of the public domain and may not be disposed of by the United States. As suggested a portion of the island is conceded to have been part of the public domain, but the contention of the plaintiff is that an error was made in the survey with the result that portions really tide land were improperly included in the survey of the high land by the land department and no power existed in the United States thus to divest the state's title.

The disposition of the public land is under the exclusive control of the land department under the Secretary of the Interior. The land department has no control over state lands. Nevertheless it has the exclusive power to determine the identity of public lands.

"The land department is charged with the duty of surveying the public lands, and must primarily determine what are public lands subject to survey and disposal under the public land laws, what lands have been surveyed, what are to be surveyed, what have been disposed of, what remain to be disposed of, and what are reserved, and its exercise of jurisdiction cannot be questioned by the courts before it has taken final action."

—50 C. J. 1074.

After such final action the decision of the land department may not be inquired into except in a direct proceeding. The title of the state to tide land is similar to swamp and overflow lands and it is generally conceded that the

action of the land department in determining the identity of such lands is conclusive.

"A decision of the Secretary of the Interior as to whether certain lands are within the terms of the swamp land grant is conclusive in the absence of fraud and cannot be collaterally attacked."

—43 USC 983. Note 6.

In support of the foregoing statement a long list of authorities is cited.

The land department had exclusive jurisdiction to determine the character of Mormon Island. This must be so because the plaintiff itself concedes that its action was regular and correct with respect to a certain portion of the island. Possessing jurisdiction to ascertain whether or not the island was above the line of ordinary high tide, and error in this ascertainment, that is an error in the quantity of the surface of the island which was of this character cannot deprive the land department of its jurisdiction.

"That the power to make and correct surveys of the public lands belongs to the political department of the government, and that, whilst the lands are subject to the supervision of the General Land Office, the decisions of that bureau in all such cases, like that of other special tribunals upon matters within their jurisdiction, are unassailable by the courts, except by a direct proceeding; and that the latter, have no concurrent or original power to make similar corrections, if not an elementary principle

of our land law is settled by such a mass of decisions of this court that its mere statement is sufficient."

—Cragin v. Powell, 32:566. (568).

The patent in this case was issued in 1880. The statute in existence at that time required that before final proof was made the pre-emptor should file with the register of the land office a notice of his intention so to do. It was the duty of the register then to publish a notice of the hearing for a period of thirty days in a newspaper published nearest to the land involved. 20 Stat. L. 472, March 3, 1879. This was notice to the world of the intention of the pre-emptor to claim the land as a part of the public domain.

"A patent issued by the land department for land which is within its jurisdiction and power of disposition is not open to collateral attack for either mistake of fact or error of law on the part of the land department, and the patentee can be deprived of his rights only by direct proceedings in equity to which he must be a party and of which he must have notice."

—50 C. J. 1106.

The motion to dismiss plaintiff's complaint should be granted and it is so ordered. Exception to the City of Los Angeles.

[Endorsed]: Filed November 20, 1933. R. S. Zimmerman, Clerk. By Francis E. Cross, Deputy.

[TITLE OF COURT AND CAUSE.]

## CONCLUSIONS AND FINDINGS

This cause came on to be heard at this term, and was argued, by counsel; and thereupon, upon consideration thereof, the court now makes and files its Findings of Fact and Conclusions of Law as follows, viz:

## FINDINGS OF FACT.

The only defendants who have raised issues herein are Borax Consolidated Limited, a corporation, and Pacific Coast Borax Company, a Nevada corporation; all other defendants have filed disclaimers herein or the cause has been dismissed as to them; the findings and decree therefore relate to the issues between plaintiff and said defendants Borax Consolidated Limited and Pacific Coast Borax Company, a Nevada corporation. The findings are also limited to the issues raised by the complaint and denials of the answer, and by defendants' first counterclaim and denials of reply thereto; no other issues were tried for the reason that the court considered its findings in respect to the above mentioned matters to be determinative and conclusive in the premises.

The court finds the following facts to be true, namely: That at and before the time of the admission of the State of California into the Union on the 9th day of September, 1850, and at all times since, Mormon Island was and has been an island in the Inner Bay of San Pedro in the State of California, having an area of more than eighteen (18) acres; that on said September 9, 1850, said island belonged to the United States, constituted public land of the United

States, and was claimed as such by the United States; that the area, extent or boundaries of the said public land were not officially determined until on or about August 26, 1880, at which time a certain survey thereof, which had been previously made by one W. H. Norway, Deputy Surveyor for the United States, was duly approved and filed in the offices of the Surveyor General for the State of California and of the General Land Office in the Department of the Interior of the United States.

That it was at all times involved in this action the duty of the Commissioner of the General Land Office, and he was by statute vested with jurisdiction, to determine from time to time the location, quality, area and boundaries of the public lands of the United States, and to that end to cause the same to be surveyed and plats thereof made, approved and filed as public records of the United States. That it was a part of the duty of the said Commissioner on and prior to the 10th day of March, 1880, and subsequent to said date, upon proper request and payment of statutory charges, to cause a survey to be made of said Mormon Island for the purpose of determining how much, if any, of the land of the said island was public land subject to purchase under the preemption acts of the United States, the exact area thereof and the boundaries of same. That after and pursuant to request duly made, one Theodore Wagner, who was then United States Surveyor General for California, acting under special direction of the Commissioner of the General Land Office, did enter into a certain contract bearing date March 10, 1880, with said W. H. Norway, who was then Deputy Surveyor for the United States, whereby said Norway was authorized and did agree, (in the language of said contract):

"in strict conformity with the printed manual of surveying instructions, issued by the General Land Office, which is hereby incorporated with, and made part of this contract, and with such special instructions as he (said Norway) may receive from the Surveyor General, in conformity therewith, will well, truly and faithfully run, measure and mark all lines necessary to survey and connect with the lines of the public surveys the tract of land in Township 5 South, Range 13 West, San Bernardino Meridian, known as Mormon Island, and supposed to be in the Northwest ¼ of Section 8 of said Township, and that he will complete these surveys in the manner aforesaid, and return the true and original field notes thereof to the office of the said Surveyor General."

That the said Norway was specially instructed by the said Surveyor General,

"to note the width and depth of the channels upon either side of the island, the heighth of the island above high water mark, and the area of the arable lands thereon."

That pursuant to said contract and said special instructions, said Norway made a survey of the said Mormon Island, beginning on the 22nd day of May, 1880, and did prepare and return to the said Surveyor General the original field notes of the said survey; that in said field notes it was stated by the said Norway that he had established certain meander corners Nos. 1 to 14, each corner being established at the line of ordinary high water and that he had meandered around the island at ordinary high water mark; that said island contained 18.88 acres; that "Said Mormon Island is from three to five feet above ordinary high tide and separated from Rattlesnake Island

by a channel about 150 to 200 feet wide with an average depth of about 10 feet at the lowest tide, said Island on the other side is separated by the usual steamboat channel of depth sufficient for navigation at all stages of the tide. The area of available land is about 18 acres, as indicated in field notes of survey". That said field notes were duly approved and filed by said Surveyor General and a plat or map of the said island, showing the location, area and boundaries of same as surveyed by said Norway, was duly prepared and filed in the offices of said United States Surveyor General and of the Commissioner of the General Land Office, and duly approved and filed on or about August 26, 1880; that the said Mormon Island was *official* designated as Lot One of Section 8 of Township 5 South, Range 13 West, San Bernardino Meridian; that no appeal from the action of the United States Surveyor General or of the Commissioner of the General Land Office, in approving the said field notes and map or plat, or in performing any of the acts preceding or entering into the issuance of the patent herein mentioned, was taken by the State of California or the City of Los Angeles or any other person whatsoever, nor was any other objection thereto made by said State, City or any other person.

That on or about the 10th day of December, 1880, one William Banning duly filed, pursuant to the preemption law of the United States then in force (Section 2262 of the Revised Statutes of the United States), his declaratory statement showing settlement on said Lot One before survey thereof, to wit, on the 6th day of April, 1880; that pursuant to proceedings duly had under the said preemption act the said William Banning made all neces-

sary proof, paid all necessary moneys and became entitled to and received a patent to the said Lot One, which was duly issued by the President of the United States on the 30th day of December, 1881, and which conveyed to the said William Banning the said Lot One of Section 8, Township 5 South, Range 13 West, San Bernardino Meridian; that the said premises so patented to the said Banning were therein described as "Lot numbered one, of Section eight, in township five south of range thirteen west of San Bernardino Meridian in California containing eighteen acres and eighty eight hundredths of an acre according to the Official Plat of the Survey of the said Lands, returned to the General Land Office by the Surveyor General"; that a true copy of the said patent is annexed to the answer of the defendants, Borax Consolidated Limited, a corporation, and Pacific Coast Borax Company, a Nevada corporation, herein and designated as Exhibit "A" thereto; that said patent was on December 30, 1881, duly recorded in Vol. 3, at page 185 of the Records of the United States General Land Office, and on February 10, 1882, duly recorded in Book 3 of Patents at page 73 of the Records of the County Recorder of the County of Los Angeles, State of California.

That it was the duty of the Commissioner of the General Land Office, in acting upon the request for a survey of Mormon Island and upon the preemption claim of said William Banning, to ascertain, and he was vested with jurisdiction to ascertain, the nature of said land and the extent and boundaries thereof; that before authorizing the issuance of said patent and before the issuance thereof, said Commissioner, after investigation and while acting within his jurisdiction, determined and decided as a mat-

ter of fact that all of the land described in said patent, to wit, the whole of said Lot One, was upland, that no portion of it was tideland or submerged land, that it constituted part of the public domain of the United States, that the boundaries of same were correctly described and delineated in said field notes of W. H. Norway and on said plat or map, and that the area of said upland was 18.88 acres.

That the said patent conveyed to the said William Banning the whole of said Mormon Island, as surveyed by said W. H. Norway and in accordance with the above mentioned plat or map; that the boundaries of the said Lot One, as so conveyed, were the boundaries as shown on the said plat or map and as described in the said field notes of the said survey; that included within the said Lot One as so conveyed by the said patent are all of the lands described in the plaintiff's bill of complaint herein and claimed by it to be tideland or submerged land.

That plaintiff's complaint herein is a collateral attack upon the said patent and the proceedings upon which it was based, including said Norway survey and the plat or map based thereon; neither the said complaint nor the evidence introduced by the plaintiff herein is directed toward determination or delineation of any of the sinuosities of the shore of the said island between meander corners; the claims of the plaintiff, as shown by the complaint, the evidence and the admissions of counsel in open court, constitute an attack upon the entire survey of the said Norway and upon said plat or map, as of their respective dates and the date of said patent to William Banning, and also consist of an attempt to reject all of the meander corners of the said survey and plat and to

prove the same to be erroneous in their entirety as applied to the premises involved in this action.

That through certain mesne conveyances defendant Borax Consolidated Limited on or about May 3, 1923, acquired all of the right, title and interest of the said William Banning in and to that portion of the lands described in the said patent from the United States, which is particularly described as follows, to wit:

"Part of Lot One (1), Section 8, Township 5 South, Range 13 West, S. B. B. & M., commonly known as 'Mormon Island', described as follows:

Beginning at a point distant North 5° 08' East 1034.30 feet and North 15° 17' 30" West 312.68 feet from Station 1 of the Government Survey of said Lot 1; thence North 15° 17' 30" West 485.52 feet; thence North 3° 45' West 285.98 feet to the Northerly line of said Island, thence along the Northerly and Easterly lines of said Island North 71° 15' East 64.29 feet to an angle point in said line; thence South 57° 58' 20" East 329.36 feet to an angle point in said line; thence South 16° 14' 35" East 190.19 feet to an angle point in said line; thence South 60° 13' 20" East 264.18 feet to an angle point in said line; thence South 22° 14' 15" East 207.43 feet to an angle point in said line; thence South 30° 12' 25" West 177.90 feet to a point in said line distant North 30° 12' 25" East 416.39 feet from an angle point in said line; thence leaving said Easterly line North 78° 23' West 561.14 feet to the place of beginning.

EXCEPTING therefrom that part lying Westerly of the Westerly line of said Lot 1 as patented by the United States to William Banning by patent recorded in Book 3,

page 73 of Patents, in the office of the County Recorder of said County."

That defendants William P. Banning, Katharine Stewart Banning, Joseph B. Banning, Jr. and Katharine Banning Graves, (who, as devisees of Joseph B. Banning, deceased, were the record owners of the portion of the said Lot One next hereinafter described), together with John C. Macfarland, as executor of the last will and testament of Hancock Banning, deceased, have since the commencement of this action executed and delivered to said defendant Borax Consolidated Limited a quitclaim deed conveying to the said corporation all of their and each of their right, title and interest in and to that portion of the said Lot One which is particularly described as follows, to wit:

"Beginning at Station Four Sixty (460) of the United States Harbor lines as established by the Secretary of War July 29, 1908; thence South 15° 17′ 30″ East 88.52 feet to a point on the meander line of the Survey of Mormon Island by W. H. Norway, Deputy Surveyor, under his contract with Theo. Wagner, United States Surveyor General of California, bearing date of March 10, 1880, commenced May 22, 1880, and completed May 24, 1880; thence Northerly along the meander line of said Norway Survey, North 19° 45′ West 213.99 feet, to meander corner No. 5 of said Norway Survey; thence Northerly along the meander line of said Norway Survey, North 1° 00′ West 158.25 feet, to meander corner No. 6 of said Norway Survey; thence Northeasterly along the meander line of said Norway Survey, North 71° 15′ East 34.78 feet to a point on the United States Pierhead Line as established by the Secretary of War July 29, 1908;

thence Southerly along said Pierhead Line, South 3° 45' East 285.98 feet, to the point of beginning."

That said quitclaim deed was on the 13th day of September, 1929, duly recorded in the office of the County Recorder of the County of Los Angeles, State of California.

That defendant Borax Consolidated Limited is the owner in fee simple absolute of all of those portions of said Lot One which are hereinbefore described and as shown by the said survey of the said Norway and said plat above mentioned. The said portions of said Lot One include all of the lands described in paragraph XII of the bill of complaint herein. Defendant Pacific Coast Borax Company is and at all times since May 3, 1923, has been in possession of said portions of Lot One and occupying and claiming possession thereof solely and only under the title of said Borax Consolidated Limited and as the agent of said last named defendant. That plaintiff City of Los Angeles, a municipal corporation, makes and asserts an adverse claim of title to a portion of said land so owned by defendant Borax Consolidated Limited and claims and asserts that that portion thereof which is described in Paragraph XII of the bill of complaint herein, is tideland or submerged land and was such tideland or submerged land at the time of the admission of the State of California into the Union and at the time of the making of the said Norway survey and the issuance of the said patent to the said Banning and at the time of the grant of tidelands by the State of California to the City of Los Angeles on May 1, 1911. But the court finds that the said claim of the said City of Los Angeles is without right and groundless and that defendant Borax Consoli-

dated Limited is entitled to have its title quieted as against all claims and pretensions of the said City and to have it adjudged that the said defendant is the absolute owner in fee simple to all those portions of the said Lot One which are hereinbefore described.

The court further finds that it is not true that that part of the said Lot One which is described in Paragraph XII of the complaint herein, or any portion thereof, or of said Lot One, was or now is tideland or submerged land, nor is it true that it is or was situated below the line of mean high tide of the Pacific Ocean or situated within or below the line of mean high tide of the harbor, estuary, bay or inlet which is designated in the bill as being formerly known as Wilmington Bay or as Wilmington Harbor or as the Inner Bay of San Pedro and now known as Los Angeles Harbor, nor is it true that the land, or any portion of the land, described in Paragraph XII of the bill was on September 9, 1850, or on May 1, 1911, or at all or any time or times during the period from September 9, 1850, to May 1, 1911, or at any other time owned and held or owned or held by said State of California, either by virtue of its sovereignty or by virtue of any other right or title or at all, nor is it true that said land, or any part or portion thereof, was on said September 9, 1850, or on May 1, 1911, or at all or any times or time since said dates, or either of said dates, or that the same, or any portion thereof, now is tideland or submerged land, either filled or unfilled, or that the same was at all or any of the said times or now is, or that any portion thereof was or is, owned by plaintiff City of Los Angeles either by virtue of grant from the State of California or by virtue of any other right or title or at all, or that the

same was or is owned subject to trust for uses and purposes or upon express conditions mentioned in the bill of complaint or upon any trust or for any uses or purposes or upon any conditions whatsoever, or that the City of Los Angeles ever had or now has any right, title or interest in or to said or any portion of the said land.

The court further finds that it is true that defendant Borax Consolidated Limited claims under the patent from the United States which is mentioned in Paragraph XIII of the bill of complaint, but it is not true that the same was a pretended or purported patent or pretended or purported grant or that it only purported to have been made, given or granted but, on the contrary, it is true that the said patent is and at all times has been a valid patent or grant duly made and issued by the United States of America pursuant to proceedings duly had under the Statutes enacted by the Congress of the United States. It is true that all of the land conveyed by and included in said patent, as shown upon the plat therein referred to, was at the time of the issuance of the said patent public property of the United States. It is not true that the said land, or any portion thereof, was, either at the time of the issuance of said patent or at any other time, owned or held by the State of California either by virtue of its sovereignty or by virtue of any other right or title. It is not true that the United States had not jurisdiction to patent or grant or transfer said land or to patent same to said William Banning or to any one else or that it had no such jurisdiction at the time of making said patent or at any time since September 9, 1850, or that the said patent or grant or conveyance, or any part thereof, was inoperative or void or that the same conveyed no title.

It is true that at all times since the issuance of said patent all of said land has been the private property of defendant Borax Consolidated Limited and its predecessors in interest to the exclusion of all claims of the State of California and the City of Los Angeles, and each of them.

## CONCLUSIONS OF LAW

As Conclusions of Law from the foregoing Findings of Fact, the court finds:

That the bill of complaint herein is a collateral attack upon said Norway survey, said map or plat based thereon, said patent issued by the United States to William Banning and upon all other proceedings in the Land Department antecedent to issuance of said patent and pursuant to which same was issued; that the action of the General Land Office with respect to each of said matters and things involved determinations of questions of fact which were specially committed to it by law for decision and which were within its jurisdiction; that said decisions have become final and the same (including the determination of the correctness of the Norway survey, and not excluding the other acts and findings above mentioned) were and are conclusive determinations which are and at all times have been binding upon the State of California and the City of Los Angeles, as well as the United States.

That the bill of complaint herein should be by decree entered herein dismissed on the merits and with prejudice.

That by said decree herein it should be adjudged, upon the defendants' first counterclaim herein, that defendant Borax Consolidated Limited is the owner in fee simple absolute and entitled to possession of all of the premises described in the said first counterclaim and hereinbefore described; that plaintiff has no right, title or interest therein or thereto; that the title and possession of said Borax Consolidated Limited in and to said lands and each part or parcel thereof be forever settled and quieted in the said defendant as against all claims and demands of the plaintiff and of those claiming under it, and that all claims and pretensions of the said plaintiff that the said land, or any portion thereof, is or has at any time constituted tideland or submerged land should be declared without right and the said title quieted as against all claims and pretensions of the said plaintiff, and said plaintiff perpetually enjoined from asserting any adverse claim or title in or to the same.

That said defendants Borax Consolidated Limited, a corporation, and Pacific Coast Borax Company, a Nevada corporation, should recover from the plaintiff their costs of action herein incurred and to be taxed herein.

DATED: Dec 7, 1933.

Geo Cosgrave
District Judge.

[Endorsed]: Filed Dec. 8, 1933. R. S. Zimmerman, Clerk By Francis E. Cross, Deputy Clerk.

IN THE DISTRICT COURT OF THE UNITED STATES IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA CENTRAL DIVISION

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| THE CITY OF LOS ANGELES, a municipal corporation, Plaintiff, vs. BORAX CONSOLIDATED LIMITED, an English corporation, PACIFIC COAST BORAX COMPANY, a California corporation, PACIFIC COAST BORAX COMPANY, a Nevada corporation, WILLIAM BANNING, WILLIAM P. BANNING, KATHARINE STEWART BANNING, JOSEPH B. BANNING, JR., KATHARINE BANNING GRAVES, BANNING COMPANY, a corporation, JOHN C. MACFARLAND, as Executor of the Last Will and Testament of Hancock Banning, deceased, JOHN DOE CORPORATION ONE, a corporation, JOHN DOE CORPORATION TWO, a corporation, JOHN DOE ONE, JOHN DOE TWO, JOHN DOE THREE, JOHN DOE FOUR, JOHN DOE FIVE, JANE DOE ONE, JANE DOE TWO, JANE DOE THREE, JANE DOE FOUR, JANE DOE FIVE, Defendants. | IN Equity<br>No. Q-12C<br>DECREE |

This cause came on to be heard at this term, and was argued by counsel; and thereupon, upon consideration thereof, it was ORDERED, ADJUDGED AND DECREED as follows, viz:

That the plaintiff's bill of complaint herein be and the same is hereby dismissed upon the merits and with prejudice.

That defendant Borax Consolidated Limited is the owner in fee simple absolute and entitled to possession of all of that certain real property which is particularly described as follows, to wit:

"Part of Lot One (1), Section 8, Township 5 South, Range 13 West, S. B. B. & M., commonly known as 'Mormon Island', described as follows:

Beginning at a point distant North 5° 08′ East 1034.30 feet and North 15° 17′ 30″ West 312.68 feet from Station 1 of the Government Survey of said Lot 1; thence North 15° 17′ 30″ West 485.52 feet; thence North 3° 45′ West 285.98 feet to the Northerly line of said Island, thence along the Northerly and Easterly lines of said Island North 71° 15′ East 64.29 feet to an angle point in said line; thence South 57° 58′ 20″ East 429.36 feet to an angle point in said line; thence South 16° 14′ 35″ East 190.19 feet to an angle point in said line; thence South 60° 13′ 20″ East 264.18 feet to an angle point in said line; thence South 22° 14′ 15″ East 207.43 feet to an angle point in said line; thence South 30° 12′ 25″ West 177.90 feet to a point in said line distant North 30° 12′ 25″ East 416.39 feet from an angle point in said line; thence leaving said Easterly line North 78° 23′ West 561.14 feet to the place of beginning.

EXCEPTING therefrom that part lying Westerly of the Westerly line of said Lot 1 as patented by the United States to William Banning by patent recorded in Book 3, page 73, of Patents, in the office of the County Recorder of said County."

and is also the owner in fee simple absolute of that certain other part or parcel of said Lot One which is particularly described as follows, to wit:

"Beginning at Station Four Sixty (460) of the United States Harbor lines as established by the Secretary of War July 29, 1908; thence South 15° 17' 30" East 88.52 feet to a point on the meander line of the Survey of Mormon Island by W. H. Norway, Deputy Surveyor, under his contract with Theo. Wagner, United States Surveyor General of California, bearing date of March 10, 1880, commenced May 22, 1880, and completed May 24, 1880; thence Northerly along the meander line of said Norway Survey, North 19° 45' West 213.99 feet, to meander corner No. 5 of said Norway Survey; thence Northerly along the meander line of said Norway Survey, North 1° 00' West 158.25 feet, to meander corner No. 6 of said Norway Survey; thence Northeasterly along the meander line of said Norway Survey, North 71° 15' East 34.78 feet to a point on the United States Pierhead Line as established by the Secretary of War July 29, 1908; thence Southerly along said Pierhead Line, South 3° 45' East 285.98 feet, to the point of beginning."

That the said defendant is and at all times mentioned in the pleadings herein has been, through its agent, the defendant Pacific Coast Borax Company, a Nevada corporation, in possession of the said real property hereinbefore described.

That the plaintiff, The City of Los Angeles, has made or asserted an adverse claim of title to each of the parcels of real property above described and has claimed and asserted that a certain portion thereof is tideland or submerged land and that the same was tideland or submerged land at the time of the admission of the State of California to the Union on September 9, 1850, and also on May 1, 1911; that it was likewise tideland or submerged land at the time of the making of the official survey of Mormon Island by W. H. Norway and preparation, approval and filing of plat thereof (which is mentioned in the findings and in the answer of said defendants herein), and also at time of issuance of the patent from the United States of America to William Banning on December 30, 1881, which said patent was on December 30, 1881, recorded in Vol. 3, at page 185 of the Records of the United States General Land Office, and on February 10, 1882, recorded in Book 3 of Patents at page 73 of the Records of the County Recorder of the County of Los Angeles, State of California (a true copy of which said patent is attached to the answer of the said defendants herein and designated as Exhibit "A" thereto). That the portion of the said premises which has been claimed by the said plaintiff City of Los Angeles to constitute tideland or submerged land is described in paragraph XII of the bill of complaint herein as follows, to wit:

Being a portion of Lot One (1) of Section Eight (8) in Township Five (5) South of Range Thirteen (13) West of San Bernardino Meridian, commonly known as Morman Island, in Los Angeles Harbor (formerly known as Wilmington Bay, and as Wilmington Harbor, and as the inner bay of San Pedro), in the City of and County

of Los Angeles, State of California, more particularly described as follows, to wit:

The true point of beginning is located as follows, to wit, Beginning at Station Four Fifty Six (456) of the United States Harbor Lines as established by the Secretary of War July 29, 1908, said Station Four Fifty Six (456) being identical with meander corner No. 3 of the survey of said Mormon Island by W. H. Norway, Deputy Surveyor, under his contract with Theo Wagner U. S. Surveyor General of California bearing date of March 10, 1880, commenced May 22, 1880, and completed May 24, 1880; thence northerly along the meander line of said Norway survey, North 10° 59' 00" West, to the northerly line of the property described in and conveyed by grant deed of Hancock Banning and Anne Ophelia Banning, his wife, to The City of Los Angeles, dated December 13, 1922, recorded December 30, 1922, in Book 1742, at page 132, of the Official Records of the said County of Los Angeles, a distance of 302.08 feet, which is the true point of beginning;

Thence from said true point of beginning northerly along the meander line of said Norway survey, North 10° 59' 00" West, to meander corner No. 4 of said Norway survey, a distance of 60.57 feet; thence northerly along the meander line of said Norway survey, North 19° 45' 00" West, to meander corner No. 5 of said Norway survey, a distance of 563.10 feet; thence northerly along the meander line of said Norway survey, North 0° 58' 40" West, to meander corner No. 6 of said Norway survey, a distance of 158.20 feet; thence northeasterly along the meander line of said Norway survey, North 71° 19' 40" East, to meander corner No. 7 of said Norway survey, a

distance of 99.00 feet; thence southeasterly along the meander line of said Norway survey South 57° 58′ 20″ East, to meander corner No. 8 of said Norway survey, a distance of 429.40 feet; thence southerly along the meander line of said Norway survey, South 16° 14′ 40″ East, to meander corner No. 9 of said Norway survey, a distance of 190.20 feet; thence southeasterly along the meander line of said Norway survey, South 60° 13′ 20″ East to meander corner No. 10 of said Norway survey, a distance of 264.20 feet; thence southeasterly along the meander line of said Norway survey, South 22° 14′ 10″ East, to meander corner No. 11 of said Norway survey, a distance of 207.40 feet; thence southwesterly along the meander line of said Norway survey, South 30° 12′ 20″ West, to the said northerly line of the property described in and conveyed by grant deed of Hancock Banning and Anne Ophelia Banning, his wife, above mentioned, a distance of 177.87 feet; thence westerly along said northerly line, North 78° 23′ 00″ West, to the 5.1-foot contour line of the survey of a portion of Mormon Island and adjacent waters, San Pedro Inner Harbor, by F. G. Dessery, C. E., July, 1909, a distance of 78.25 feet; thence North 24° 52′ 33″ East a distance of 132.47 feet to a point on said 5.1-foot contour line; thence North 7° 36′ 39″ East a distance of 117.03 feet to a point on said 5.1-foot contour line; thence North 33° 47′ 48″ West a distance of 74.61 feet to a point on said 5.1-foot contour line; thence South 71° 50′ 00″ West a distance of 51.36 feet to a point on said 5.1-foot contour line; thence South 11° 01′ 55″ West a distance of 121.24 feet to a point on said 5.1-foot contour line; thence South 25° 47′ 43″ West to the said northerly line of the property described in and conveyed

by grant deed of Hancock Banning and Anne Ophelia Banning, his wife, above mentioned, a distance of 156.08 feet; thence westerly along said northerly line, North 78° 23' 00" West, to the true point of beginning, a distance of 345.00 feet.

That the said claims of the said City of Los Angeles are, and each of them is, without right and groundless; that no portion of any of the said lands hereinbefore in this decree described constitutes or ever has constituted tideland or submerged land; that the above mentioned patent was a valid conveyance by the United States of America to defendants' predecessor in interest, William Banning; that the said patent was made pursuant to proceedings duly had in accordance with then existing statutes providing for the survey and patenting of the lands described in the said patent and that the same constituted a valid conveyance by the United States to the said William Banning of all the lands therein described, according to the official plat of the Survey of said Lands which is mentioned in said patent, and according to the boundaries on said plat delineated; that plaintiff City of Los Angeles has not any estate, right, title or interest whatsoever in or to any of the lands above described as lands belonging to said Borax Consolidated Limited, or in or to any part or portion thereof; that the title and possession of the said Borax Consolidated Limited, a corporation, in and to each part and parcel of said Lot One hereinbefore particularly described be and the same is hereby for ever settled and quieted in the said defendant Borax Consolidated Limited as against all claims, demands and pretensions of the said plaintiff, The City of Los Angeles, a municipal corporation, and of those claiming under it.

That the said plaintiff is hereby perpetually enjoined from asserting any claim or title whatsoever, in or to the said property, or any portion thereof, adverse to the said defendant Borax Consolidated Limited.

The only defendants who have raised issues herein are Borax Consolidated Limited, a corporation, and Pacific Coast Borax Company, a Nevada corporation; all other defendants have filed disclaimers herein or the cause has been dismissed as to them; the findings and this decree therefore relate only to the issues between plaintiff and said defendants Borax Consolidated Limited and Pacific Coast Borax Company, a Nevada corporation. The findings and decree are also limited to the issues raised by the complaint and denials of the answer, and by defendants' first counterclaim and denials of the reply thereto; no other issues were tried for the reason that the court considered its findings in respect to the above mentioned matters to be determinative and conclusive in the premises.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that defendants Borax Consolidated Limited, a corporation, and Pacific Coast Borax Company, a Nevada corporation, do have and recover against the plaintiff, The City of Los Angeles, a municipal corporation, their costs hereby taxed at $380/42.

DATED: Dec. 7, 1933.

Geo Cosgrave.
District Judge.

Decree entered and recorded Dec. 8-1933
R. S. ZIMMERMAN, Clerk.
By Francis E. Cross, Deputy Clerk.

[Endorsed]: Filed Dec. 8, 1933. R. S. Zimmerman Clerk, By Francis E. Cross, Deputy Clerk.

IN THE DISTRICT COURT OF THE UNITED STATES SOUTHERN DISTRICT OF CALIFORNIA CENTRAL DIVISION

| | |
|---|---|
| THE CITY OF LOS ANGELES, a municipal corporation, Plaintiff, vs. BORAX CONSOLIDATED LIMITED, et al., Defendants. | No. Q-12-J In Equity |

## STATEMENT OF EVIDENCE UNDER EQUITY RULE NO. 75

BE IT REMEMBERED that the above entitled cause came on regularly for trial before the court, sitting in equity, on November 7, 8, 9, 10, 14 and 15, 1933, upon the issues formed by the Bill of Complaint and Answer thereto of the defendants, together with the counterclaims of defendants, and plaintiff's reply thereto, Ray L. Chesebro, Esq., City Attorney of the City of Los Angeles, and Loren A. Butts, Esq., Assistant City Attorney, appearing as solicitors for the plaintiff, and Messrs. Newlin & Ashburn appearing as solicitors for the defendants, Borax Consolidated Limited, a corporation, and Pacific Coast Borax Company, a Nevada corporation.

(Testimony of Charles A. Hale)

Plaintiff's Case

CHARLES A. HALE,

being first duly sworn, the following proceedings were had, to wit:

"MR. BUTTS: This is an action brought for the purpose of quieting title to certain tide lands situated in the inner harbor at San Pedro; it comprises a portion of Mormon Island, which, since 1909, has been reclaimed and filled in. What we expect to show is essentially as follows: That this land which is in controversy is tide land; that in 1850, when the State of California was admitted into the Union, the State of California became the owner of all the tide lands within its borders; that in 1911 the State of California granted these lands to the City of Los Angeles, and in 1917 a subsequent grant was made by the Legislature, granting all the State's right, title and interest in these lands to the City. That the City holds the lands in trust for the purpose of commerce, navigation and fishery; that in 1881 a patent was issued to these lands, or purported patent was issued to these lands to William Banning. Now, it is our contention that that patent, in so far as it attempted to convey tide lands to the Bannings, was void, and conveyed nothing. That the United States government had conveyed the tide lands to the State when the State was admitted into the Union, and consequently they had nothing to convey, and therefore the main and only issue in this case, as we see it, is the question as to where is the line of mean high tide, that is, where is the line that is reached

by the ebb and flow of the tide, and we contend that is tide land, and belongs to the City.

MR. ASHBURN: The only defendants appearing in this Q-12, are Borax Consolidated Ltd. and Pacific Coast Borax Company, a Nevada corporation. The Borax Consolidated, Limited, is the owner of the property and the Pacific Coast Borax Company is in possession as the agent of the Borax Consolidated. So for all practical purposes we can speak of the Borax Company as representing the two defendants.

The evidence in this case will show that in 1850, September 9th, when the State of California was admitted to the Union, there was an island known as Morman Island in the Inner Bay of San Pedro, and that the title thereto rested in the government of the United States. It will also appear that at that time, as at all times since, under the constitution and under the statutes, the federal government had set up a special statutory tribunal, the Land Department, for the purpose of administering the public lands, and particularly of determining the character of the lands, whether agricultural, mineral, or what not, the character of the land and the area of the same and the boundaries, all as incident of the exercise of its power of administering the laws relating to the disposition of public lands of the United States. When California came into the Union, she did so under a statutory compact which expressly provided that she never, by legislative act or in any other manner, should question or interfere with the primary right of the federal government to dispose of its public lands; as I have stated, the statutes then in effect,

(Testimony of Charles A. Hale)

and later in effect, provided that the Land Department should have charge of all these matters.

In 1880 William Banning, claiming to be in possession of same, filed his application and other necessary proofs under the preemption laws of the United States, and asked for a survey of Mormon Island, which the pleadings admit, then, as well as at the time that the State came into the Union, was an island and constituted public land belonging to the United States. He made application for these things, and the United States through its Land Department appointed one Norway to make the survey and entered into a special contract with him to do that work on behalf of the United States, and required of him a bond that he would do it faithfully, as well as an oath. His contract provided that he should proceed pursuant to the General Land Department instructions in the premises, as well as any special instructions which might be given him by the Surveyor General, who happened at that time to be Theodore Wagner. Pursuant to that contract and that authority, Mr. Norway in May of 1880, made upon the land a survey of this island, his special instructions having required him to ascertain not only the nature and extent of the island, but also the high water mark and the elevation of the land above high water mark, as well as the extent thereof which was available for agricultural purposes. You will notice that I state 'high water mark'; I did not say 'mean high tide line' as counsel did when he was addressing your Honor, for the simple reason ... at this theory of mean high tide line upon which the City stands is a recent theory which has been injected into the law, and which, as I will show you by the authorities later

on, had no place in our jurisprudence at the time that the State came into the Union or at the time that this Norway survey was made.

Mr. Norway's instructions were to ascertain the high water mark and the relation and extent of the island with respect thereto; and that he did, returning his field notes setting forth the manner in which he had meandered the shore lines of the island and stating the distance above the high water mark that he found the land, and stating specifically that it constituted 18.88 acres of high land fit for agricultural purposes.

Pursuant to the ordinary routine of the Department, a plat, which was made upon the Norway survey, was approved by the Surveyor General of the State of California and transmitted to the Interior Department, where it was likewise accepted, approved and filed and today constitutes one of the public records of the United States, and upon that map and that survey,—the field notes, of course, as a matter of law being read into the document as a part thereof,—a patent was issued in December of 1881 to William Banning, who was the predecessor in interest of the defendant Borax Company. The Borax Company now claiming under Banning the northerly portion of the island consisting of eight and a fraction acres. The Borax Company claims here today under that federal patent, and strictly in accordance with the lines of that patent. We do not claim a foot outside. So we stand firmly upon the action of the federal government in the premises. That is our basic title and we can readily trace it from William Banning down to the Borax Company. We will later contend that that action of the federal gov-

ernment constituted a conclusive and binding adjudication with respect to the nature, character, area, quality and boundaries of that line, a binding adjudication which stands on an equal footing with an adjudication of a court of justice which has become final. And we shall later attempt to show your Honor, and I think successfully, that it is an adjudication of the nature of which is not only binding upon the United States but is binding upon the State of California and upon everybody claiming under the one sovereign or under the other sovereign.

Now, this patent having been issued in 1881, we find that some 35, 36 or 37 years later the City of Los Angeles started a series of so-called tide land suits in Wilmington Harbor. You will recall that, as counsel stated, the State of California automatically succeeded to all of the tide lands at the time that it became a sovereign state; it thereafter passed certain statutes providing for the disposition of tide lands and grants were made by the State to Banning and others covering practically all of the tide lands in Wilmington Harbor; as a result of which the People at the instance of the City, the suits being financed by the City, started this series of so-called tide land suits. They went along in most instances to judgment, but there was one case that never went to judgment. The People or the City started, as one of that series of cases, an action with respect to this particular Mormon Island, and they made the same claims as to the character and boundaries of the island, as to the invalidity of the patent in part, and they raised exactly the same issues which are raised in this case. That action was dismissed, however, and

we shall contend that under the authorities the dismissal of that action constituted a retraxit or a judgment which has the same force and effect as judgment in any other lawsuit, and we shall base that contention upon these circumstances:

MR. BUTTS: May I interrupt Mr. Ashburn, you say that action was dismissed. Now, that action was dismissed without prejudice.

MR. ASHBURN: No, sir, that is not my contention. The Bannings succeeded in establishing their title to a certain tide land location, which is Location No. 152, which is, in part, bounded by the boundary of Mormon Island. The victory was not complete, however, as the judgment was to the effect that the Bannings owned that tide land, subject to the use for navigation and fishery.

THE COURT: You are speaking of a judgment. This is not the suit that was dismissed?

MR. ASHBURN: I am speaking of two suits. There was one suit relating to Mormon Island, which was dismissed. There was another suit in which title did go to the Bannings, subject to the public use for navigation and fishery. Now, as a result of that other judgment, the Bannings and the City made a compromise whereby the Bannings, for certain considerations, conveyed their title to this tide land 152 to the City of Los Angeles, taking back, among other things, a lease from the City on that tide land; but one of the considerations that the Bannings got for deeding this 152 to the City of Los Angeles was a written agreement on the part of the City that they dismiss this action on Mormon Island. On that agreement being properly ratified by the Board of Harbor Com-

missioners, and the City Council, it was signed by the parties, was recorded, and became an effective and binding thing; and pursuant thereto the action on Mormon Island was dismissed. Counsel says it was dismissed without prejudice. I say that though there is in the record something which he will contend supports that contention, the rights of the parties were fixed at the time the principals entered into this compromise agreement; and that any dismissal made pursuant thereto was a judgment on the merits, and that anything that the attorneys may have done or may have attempted to do, in the way of varying or departing from that compromise agreement and the basis of the dismissal, was not only unauthorized as a matter of law, because an attorney cannot compromise or give away his client's property, but it was also a thing which did not become a part of the public record, did not appear in our chain of title, and is a matter with which we are not charged. So that one of our contentions will be that the City of Los Angeles is conclusively bound by the dismissal of the former action, which involved all of the lands which are now under consideration.

We shall also expect to show your Honor that there is an estoppel in existence, which precludes the City of Los Angeles from making any such contention as they now make. In other words, we shall show that, notwithstanding all the ordinary immunities which attach to a municipality, the situation here is such that even a public body cannot be said, in honesty or good conscience, to be not precluded from denying the facts upon which they and we have acted for at least 10 years, and on

which we have spent an amount of money which at this time amounts to about one and a half million dollars. I wonder if I can have a minute's help on this; I am putting up this map to illustrate what I am expecting to bring forth.

I am not asking your Honor to consider this except as a general illustration at this time of what I am expecting to do. We expect to show that these lines which I am running here are the patent lines established by the Norway Survey, and which are automatically read into the patent that went to William Banning. Now, the northerly portion of the land is what the Borax Company has title to; the middle portion of the land is owned by the City, and the south end by the Bannings, being the property involved in the suit, Q-13-H, that is about to be dismissed. We will show you that in 1922 the City of Los Angeles purchased from Hancock Banning this central portion here, at a price of $49,000 per acre, including in the purchase all of this land according to the patent boundaries, about half or more of which, according to their present contention, was tide land. You see that is one element in the estoppel.

The City purchased, for $49,000 an acre, this parcel, half and more of which they now contend is tide land. Just after this purchase was made the Borax Company, being induced thereto by the activities of the Chamber of Commerce of the City of Los Angeles and by the Harbor Board and the City Attorney, believing, because of assurances made to them by the City of Los Angeles that this was all good high land which they would acquire

(Testimony of Charles A. Hale)

a title to, and having no reason at all to believe that this attack was ever going to be made or that there was any contention that it was tide land, purchased this property from the Bannings. They paid something like $150,000 for it; and then

THE COURT: When did that happen with relation to the dismissal of the suit that you mentioned a moment ago?

MR. ASHBURN: About five years after dismissal. As soon as they got this property, they applied to the City, through its Harbor Board, which under the charter have the jurisdiction over those matters, for a permit to build a refinery and other similar improvements, submitting to the City all their plans and specifications, showing what kind of investment they were going to make there, and the City formally, by action of the Board of Harbor Commissioners, approved that application and issued a building permit, and then the Borax Company erected a refinery. Now, I am going to show that this map, from here up, is a correct representation of the improvements on that property, placed there by the Borax Company. I am going to show you that this is a great big magnificent refinery, four stories high, so built as to sustain additional stories on the top when they get ready to expand. This is the transit shed here, and this is a transit shed, and their wharf and their power plant, and if that be a correct depiction of what is high land, and if this be a correct depiction of what is not high land, the City stood by and permitted this investment, which in the aggregate, with the machinery installed therein, will easily amount to a

(Testimony of Charles A. Hale)

million and a half dollars, to be placed, all except a little bit like that, upon tide land, if their present contention is correct. We will show you that this was not just one job, but was half a dozen or dozen different jobs which were added to this refinery after it had been originally built, and that each one of them was done under the specific sanction of the City of Los Angeles and its officers charged with the functions pertaining thereto.

Now, we will show your Honor that in connection with the making of this large investment of a million and a half dollars, under the sanction and encouragement of the City of Los Angeles, the Borax Company, believing that they had a good piece of land, closed their factory at Alameda, California, and closed their other refinery at Bayonne, New Jersey, and centered all their activities on this piece of property, having had idle, in each of these localities for some years last past, as a result of their reliance on this title, in Alameda a small refinery and in Bayonne a large refinery. We will show your Honor that there has been repeated recognition by the City of Los Angeles, directly and indirectly, of the validity of this title, going so far, if you please, as to amount to an express written recognition, through the document which is attached to the answer in this particular case and which is not denied. That document is a license given without compensation, before this litigation arose, a license from the Borax Company to the City of Los Angeles to construct and maintain a pipe line across the property of the Borax Company up in here somewhere, to down here on this parcel, which it has leased to the Shell Company. And that pipe line, as this map will disclose, a large part

of the way, follows this boundary, and then it shoots off like that (indicating). The document which is pleaded here expressly states that the property along the boundaries of which the City is acquiring this easement, is the property of the Borax Company. After they got this easement, and after they built this pipe line, they asked for more, and they got it, without compensation; they asked for an additional right to build a conduit along that same right of way for a telephone cable, I believe, or some kind of cable, and it was granted, and it was constructed, and that pipe line and that cable, under this authority, or these different documents which I have mentioned, were placed there, and are there today in operation, and the City is this very minute enjoying the benefit of that contract wherein they got their pipe line right of way upon the representation and agreement that that land was the land of the Borax Company.

We shall likewise show to your Honor facts and circumstances which we believe bring this case directly within the purview of the case of Muenchenberger v. The City of Los Angeles, 206 California Reports. That is an interesting case, somewhat directly bearing upon this. Along the beach at Santa Monica, below the bluff there, there was a piece of sand or shore, which, roughly speaking had a tide line which ran—I used this for the purpose of illustration—which ran, like this, your Honor (indicating on diagram), and the owner of the upland and the City—some of the tide land was outside of this line and some was inside. The owner of the upland and the City entered into a formal agreement that the high tide line there where the so-called—they called it the high tide

land, should be this line and not the one which Nature had created. And a taxpayer brought a suit and contended that that whole thing was void because the City had no right to trade or give away or sell or convey away its tide lands and that it was manifest on the face of the record that is what they were trying to do. And the Supreme Court of California said that the City, like anybody else, having an uncertain boundary could enter into an agreement and make it certain. That is what this came down to, though it was effectuated through an exchange of deeds. The Supreme Court said that the lower court had properly ruled that there was no conveyance at all, but it was merely a method of making an agreement for a certain definite boundary line where one had been uncertain before. You will note that the case specifically related to tide lines and tide lands and that the contention there made is virtually the same one that will confront you here, and be advanced by the City.

I expect to show that there has been in effect an implied agreement between the City on the one hand and the Borax Company and its predecessors on the other hand, by which these lines have been established. I will show that there has been a building up to us on the north, an occupancy by the City there (indicating) and by us here (indicating), and I will show that, by the City's lessee there has been a building up on the south to the line, and I will show you that the City has approved this subdivision around here, which outlines the tract, as it is done on this map. I will go further and I will show you to the south here a controversy arose as to what was the true boundary line, and that that having been debated back and forth

for a while that it was finally dropped because the difference was only something like three inches. But in that connection I will show you that never during the whole course of the dispute did the City of Los Angeles ever make the suggestion that they had any right to anything north of the boundary line.

Now, they will say that is not in point because that is a deed line and not a patent line. So it is. They will tell you this (indicating) is it, and not the line I am talking about, which goes from here out to here somewhere. But all of this, according to my contention, is tide land, but they never made a single suggestion that they had any rights north of that line when that dispute was in progress. So we think we can show your Honor there has been here an implied agreement upon a boundary line, which boundary line is the same as that established by the patent of the United States which we claim.

One more matter I want to mention. Counsel say that these lands were filled during 1909. His argument is that they were below ordinary high water mark at that time and that there was a filling which brought them up above the high water mark. I deny that they were at that time or any other times below the high water mark or even below his fictitious line of mean high tide. I deny that, and I expect to prove to your Honor that such was not the case. And I shall also be able to prove that the grant which was made by the State to the City of Los Angeles did not occur until 1911. That is conceded. And that the lands which were there granted were only those lands which were then tide lands and were then situated below the line of mean high tide. And I will show you that these

lands, even assuming the City's premise, were not at that time below mean high tide, and even if the City is right its contention that prior to the filling the lands were below high tide, I will still be able to show your Honor that such filling as was done was done in aid of commerce and navigation, and the reclamation, as they will call it, was but an incident to the larger public purpose, and that any reclamation that was done pursuant to that purpose was a lawful one.

What they refer to in that 1909 connection is this: The City of Wilmington passed an ordinance in which it granted to the Southern Pacific Company a franchise for a railroad conditioned, however, upon the railroad company dredging out a channel 100 feet in width and 18 feet in depth along a line which would run something like this (indicating); and pursuant to that authority the Southern Pacific Company, directly or indirectly, built some levees around here; not confined to Mormon Island, but up around here (indicating), built levees to hold the dredging material, and put a dredger to work, and then pursuant to the specific condition of this ordinance they dredged out this channel, and the dredged material was put in back of these levees, and a parcel of land like that (indicating) was covered with the dredging material, and was, of course, raised in elevation, all of which I shall contend and expect to show by the evidence, was but a legitimate incident to the furtherance of commerce and navigation, as specifically required by this ordinance of the City of Wilmington, the predecessor of the City of Los Angeles; and as I state, but an incident to the lawful

improvement which the City not only sanctioned but required.

On the first point I mentioned, namely, the fact that the determination of the federal government in the issuance of this patent constituted a conclusive adjudication, I shall ask your Honor when any evidence is offered to permit me to elaborate upon the point somewhat by way of an objection to the introduction of evidence, because I am, in my own mind, convinced that that defense appears upon the face of the pleadings, and that as a matter of law it is conclusive of this litigation.

THE COURT: You mean in your answer?

MR. ASHBURN: It appears both in the complaint and answer, sir, and is admitted in the reply. Without any doubt it appears in the pleadings taken together."

At the conclusion of said opening statements an objection to the introduction of any evidence was made on behalf of defendants as follows:

"MR. ASHBURN: I object to the introduction of any evidence on behalf of the plaintiff in this cause upon the ground that it affirmatively appears that the complaint does not state a cause of action and that this is but an attempt by one who has no right to maintain such an action, to directly and affirmatively attack and set aside a patent issued by the United States, which is binding and conclusive with respect to the subject matter of this action, binding and conclusive upon the plaintiff as well as the defendant, the court and everybody else.

* * *

(Testimony of Charles A. Hale)

Now I revert to the pleadings. This complaint is a direct attack upon the federal patent. In Paragraph 12 of the complaint, where the properties which the city claims are described, they tie right into the federal patent and patent survey as the basis of their claim. They start out this way: 'Being a portion of Lot 1 of Section 8, in Township 5 South, Range 13 west of San Bernardino meridian, commonly known as Mormon Island', and so forth. And then having found what they call the true point of beginning or, rather, in locating their true point of beginning, they say it is identical with the meander corner No. 3 of the survey of Mormon Island, by W. H. Norway deputy surveyor under his contract with Theodore Wagner, U. S. Surveyor General of California, bearing date of March 10, 1880, commenced May 22, 1880, and completed May 24, 1880;' showing that they specifically base their own description upon the correctness of that survey.

Now, what they say in the way of describing the land they claim is to start here, and then they follow the federal patent around to there, and then they cross this Hancock Banning tide line to there (indicating), if they described anything—I will bring that point up later—if they describe anything, they come up around here and back to the tide line, and over to there. The whole thing is based upon the survey of Norway and the patent of the federal government made pursuant thereto. But the real gist of the action is set forth in paragraph 13 where—

* * *

In paragraph 13 of the complaint it is alleged that the defendants have no valid claim to the land, and the

(Testimony of Charles A. Hale)

pleader then goes on to say what he is talking about, line 20-1/2: 'That plaintiff is informed and believes and on that ground alleges that each and all of said defendants assert claim to some estate or interest in or to said lands or some part thereof under an alleged common source of title, to wit, under a pretended patent or grant purported to have been given or granted by the United States of America to one William Banning, December 30, 1881, recorded in Vol. 3, page 185, Records of the United States General Land Office, and recorded in Book 3, of patents, at page 73, Records of said county of Los Angeles; that said lands at the time of the issuance of said pretended patent or grant were not and no part thereof was public property of the United States, but, on the contrary said lands were at the time of the issuance of said pretended patent or grant owned and held by said State of California by virtue of its sovereignty, and said lands have not and no part thereof has been public property of the United States at any time since the issuance of said pretended patent or grant, and the United States has not had at any time since September 9, 1850, jurisdiction to patent or grant or transfer said lands to said William Banning or to anyone else, and if said attempted patent or grant or conveyance of said lands or any part thereof was inoperative and void and conveyed no title whatsoever; and that the claims of said defendants and each of them to said lands or to any part thereof are, and each of them is, wrongful, invalid, and without right.

And the patent which the complaint there directly attacks or seeks to attack is the same patent which is set

up as Exhibit A to our answer. Exhibit A is not denied by the defendant's reply.'

MR. ASHBURN: And I am sure counsel will not even contend that there is a difference between one patent and the other patent.

THE COURT: The patent set up in your answer is the identical patent referred to in the bill

MR. ASHBURN: That is correct, your Honor.

It is also alleged in the answer and admitted by the reply, that at the time the State of California was admitted into the Union, Mormon Island was in existence and was an island, and it is admitted that it belonged to the United States. We allege that the area or extent of that island was never determined prior to the Norway survey. They admit that in a qualified manner; they say it never has been determined. We allege that the Norway survey was made under certain special instructions, and they admit the facts, admit the instructions as set up, but deny the correctness of the Norway survey. The two quotations from his instructions are very pertinent, and not very long. The allegation of the answer, in that connection, is that Mr. Norway, in making this survey, or before making it, did enter into a certain contract bearing date March 10, 1880, and I am reading from page 12, line 9,

'with one W. H. Norway, who was then deputy surveyor for the United States, wherein and whereby the said Norway was authorized and agreed "in strict conformity with the printed manual of surveying instructions, issued by the General Land Office, which is hereby incorporated

(Testimony of Charles A. Hale)

with, and made a part of this contract, and with such special instructions as he (said Norway) may receive from the Surveyor General, in conformity therewith, will well, truly and faithfully run, measure and mark all lines necessary to survey and connect with the lines of the public surveys the tract of land in Township 5 south, Range 13 West, San Bernardino Meridian, known as Mormon Island, and supposed to be in the northwest 1/4 of Section 8 of said Township, and that he will complete these surveys in the manner aforesaid, and return the true and original field notes thereof to the office of the said Surveyor General." ' That is admitted, that that was in his contract. We further allege, and it is not denied, 'that the said Norway was specially instructed by the said Surveyor General "to note the width and depth of the channels from either side of the island, the height of the island above high water mark, and the area of the arable lands thereon." '

Those things are not denied. We likewise allege that after the survey was made the field notes were returned in the customary manner and plat was based thereon, and that that plat was approved by the Land Department, and that on the basis of that plat they issued this patent, which is presented, and which is admitted: the patent, by the way, does not describe or undertake to describe the land by metes and bounds, but on the contrary describes it as 'Lot numbered 1, Section 8, in Township 5, south of range 13, west of San Bernardino Meridian in California, containing 18.88 acres, according to the official plat of the survey of said lands returned to the General Land Office by the Surveyor General, which said tract has been pur-

chased by the said William Banning.' So that is the only description with reference to the plat, and that reference, as counsel will concede, refers to the plat which outlines the island just as I have drawn my figures around it. And under the authorities which I will present to you in a few minutes, that operated, as a matter of law, to write into this patent the field notes and survey of Norway, upon which the patent was based."

After extended argument by counsel the following statements were made:

"MR. BUTTS: There is a little something more involved in this matter than just what your Honor mentioned. We contend also there is a discrepancy between the field notes of the Norway survey and the natural monuments referred to in the field notes, and naturally, the field notes must give way to the natural monuments. I think that is a well settled rule.

THE COURT: In other words, the survey itself while it—you concede its validity for the purpose of this discussion,—properly interpreted will show that the lands were not included within the preemption.

MR. BUTTS: Well, to answer that question I will have to explain this: It is our contention and I think I am supported by the authorities which I will submit to your Honor, that the Norway survey was nothing more than the running of a meander line for the purpose of determining the quantities that the preemptor or the applicant had to pay for. They were not boundary lines; that the mean high tide line was the actual boundary. We will furnish your Honor with plenty of authorities to that

(Testimony of Charles A. Hale)

effect, that the field notes—the calls in the field notes reads something like this 'at ordinary high water mark'. We will show the patent lines are not the high water mark, and it deviates away from the high water mark, and therefore there is a discrepancy between the calls and the natural objects, and of course that call will have to yield to the natural objects.

MR. ASHBURN: You will recall that counsel injected, just before the noon hour of the court, that indirectly he can go behind this patent and the lines thereof upon the theory that the lines of the patent are but meander lines and that meander lines are not boundary lines, and therefore, the patent is not conclusive as to the boundaries. There is no doubt about the general proposition that where lands are bounded upon waters of any kind, ordinarily the meander lines which result from the survey are not considered as boundary lines as distinguished from the stream or the bay or the ocean itself, and that they are intended as indicative and not as conclusive with respect to the little sinuosities or indentations which may lie between.

But the principle for which counsel contends, the general rule has no such operation as he talks about.

Now, here are the meander corners, M.C.2, M.C.3, and M.C.4, and so forth; those are the meander corners of the survey, and if there be any little sinuosities here whereby there is an indentation there, a projection there, and so forth, the rule which counsel refers to is that as of the time that the survey was made, if it becomes important, it is the water itself that bounds instead of the

meander line which connects the two established corners. I say that is the general rule, but it is by no means the universal rule, as is evidenced by the case of Producers Oil Company against Hanzen in 238 U. S., 325, and also 59 Lawyers Edition, 1330, where they state: 'Many cases decided by this court involved construction of patents conveying public lands by reference to official surveys and plats indicating streams or other waters'. Then, the court cites many cases.

'A review and analysis of these cases would be tedious and unprofitable; thorough acquaintance with the varying and controlling facts is essential to a fair understanding of them. They unquestionably support the familiar rule relied on by counsel for the Oil Company that in general meanders are not to be treated as boundaries and when the United States conveys a tract of land by patent referring to an official plat which shows the same bordering on a navigable river the purchaser takes title up to the water line. But they not less certainly establish the principle that facts and circumstances may be examined and if they affirmatively disclose an intention to limit the grant to actual traverse lines these must be treated as definite boundaries.'

Now, in the case at bar the lines in question do actually follow those exact and definite traverse lines, because all of this around here had been already surveyed, and this survey was limited to a single island standing out by itself in the bay, and the report of the surveyor was that—on which the plat was issued, was as a result of this survey, going from corner to corner, and he found the area to be 18.88 acres.

(Testimony of Charles A. Hale)

Assuming the general rule to be as he contends for, it is inconceivable that it would be applicable here for the simple reason that the complaint, as I read you this morning, specifically alleges that all this land which they describe was not land belonging to the United States, and that the patent was void with respect thereto, and they contend that everything except this little white space that they have shown on their illustrative map, was tide land. So, manifestly, there is not any attempt to tie into the sinuosities of the waters as a boundary line. There is not any attempt to modify that straight line into a sinuous one. There is here a bold and a deliberate attack upon the authority of the United States to survey or delimit that land at all; there is a definite denial of the jurisdiction of the federal government in the premises. Their complaint is not constructed upon any such theory as that that they injected into the argument this morning. The language of their complaint is not susceptible to that construction. They definitely deny the jurisdiction of the federal government in the premises; they definitely allege that none of this land within those boundary lines was high land except as they illustrated that little white spot there. So there is not any possible application for their theory here. Moreover, I submit that in view of the circumstances under which this survey was made that the lines as shown on the patent was under this case boundary lines and not mere meander lines.

THE COURT: Well, now, let me ask you a further question. I understand the description and the complaint to include the whole Island.

(Testimony of Charles A. Hale)

MR. BUTTS: No, your Honor, the description in the complaint in this suit which is now on trial describes the land which is colored in buff on that map, and there is excepted from the island that portion of the island in controversy here, the land which is in white, that small area of land which is in white on the map.

THE COURT: It involves the area colored and does not involve the white?

MR. ASHBURN: That is right.

MR. BUTTS: That is right, your Honor.

The map to which reference was made in the foregoing colloquy is the same map, colored buff and white, which was later received in evidence as plaintiff's Exhibit 2 and true copy of which is inserted herein as follows, to wit:

[For copy of Exhibit No. 2 (Map) see page 1 Book of Exhibits.]

"MR. BUTTS: We contend the white area is land above mean high tide, is upland. That is the true boundary between the publicly owned land—when I say publicly owned I mean land owned by the State of California at that time, because it was tide land. The other land was publicly owned land of the United States, because it was above the line of mean high tide and could be conveyed by the government.

THE COURT: In other words, the government properly issued a patent to the portion of the land colored white?

MR. BUTTS: Yes, your Honor.

(Testimony of Charles A. Hale)

THE COURT: But did not properly issue a patent to what you call the buff colored portion?

MR. BUTTS: Yes, in so far as the patent attempted to grant away and grant to the patentee the tide lands which at that time we contend belonged to the State of California, that it is void in so far as it attempted to do that. In other words, that the government could not convey away something which it had no title to and which had already been conveyed to the State of California.

THE COURT: Yes, I am clear upon that. I did not know for a while but this involved merely the border; in a sense that is true, but not in the way that I had conceived.

MR. BUTTS: That is true, your Honor. It is our contention that there was only a small portion of that land which was described in the patent that was upland, that was above the line of mean high tide, a very small area, and that the rest of it was tide land.

* * *

THE COURT: Is there anything in the case involving a conveyance? There is not. In other words, there is no question here of a recognition of title by accepting a conveyance from the patentee under the preemption entry?

MR. BUTTS: Not so far as we are concerned. The defendants here have secured whatever title they have from the original patentee by means of a conveyance. We do not contend we have any title or any conveyance from the original patentee.

THE COURT: No, I do not mean of any of the land in dispute; I mean any of that white portion.

(Testimony of Charles A. Hale)

MR. BUTTS: We do not dispute the fact but what the borax people have title to that land by means of conveyance from the original patentee. In other words, we think they will be able to establish that without any question of a doubt.

* * *

MR. ASHBURN: Now, the other ground of my objection to the introduction of evidence is that the complaint does not state a cause of action in that there is no legal or ascertainable description of the premises sought to be recovered. If your Honor will be good enough to turn to page 6 of the complaint, line 15, I can explain what I mean. Before I read that may I just explain that the description in the complaint starts here and follows the patent description (illustrating on Plaintiff's Exhibit 2)—it starts here and follows the patent description all around like that, and at the line pointed out it says:

'Thence southwesterly along the meander line of said Norway survey, south so and so west, to the said northerly line of the property described in and conveyed by grant deed of Hancock Banning and Annie Ophelia Banning, his wife, above mentioned, a distance of 177.87 feet;'

That brings us to right there (indicating on diagram), out around this way, and then the complaint says:

'Thence westerly along said northerly line, north 78 degrees, 23 minutes, no seconds west, to the 5.1 foot contour line of the survey of a portion of Mormon Island and adjacent waters; San Pedro inner harbor, by F. G. Desserey, C. E. July 1909, a distance of 78.25 feet; thence north 24 degrees, 52 minutes, 33 seconds east a

(Testimony of Charles A. Hale)

distance of 132.47 feet to a point on said 5.1 foot contour line;'

The point of the objection is that presumably from here around to there, assuming this is a map depicting what they are describing, they follow this so-called line or the survey which has not been shown to have been a public survey and is not shown to be a public record, and you could not from this description go about the land or go to the public records and locate the land.

* * *

THE COURT: It would be the disposition of the court to allow an amendment. To correct any inaccuracy, if any such exists. Therefore, I would not think it necessarty to spend very much time on it.

MR. ASHBURN: You would not care for authorities on that?

THE COURT: No, I don't think so.

* * *

MR. BUTTS: That is what we contend; that this Norway survey, and the patent issued following it, does not correctly delineate the shore line of the bay, or the island, or the mean high tide, and that there was no intention on the part of the government, in fact, the government could not convey that land which at that time belonged to the state of California.

* * *

THE COURT: (interrupting) Counsel yesterday suggested that a line established by the survey might not of necessity or might not necessarily be accurate, that is

(Testimony of Charles A. Hale)

to say, it would be affected by the principles applied where meander lines are considered. In other words, that, notwithstanding the establishment, as I understand your position, Mr. Butts, notwithstanding the establishment of the lines by the United States survey, that would mean in a general way more or less, the meander line is not the exclusive test of the boundary. In a general way I understand that is your position.

MR. BUTTS: Yes.

* * *

THE COURT: Well, the defendant in this case contends that this line that I am noting with my pen, and so forth, is the actual high water or high tide line. Can the court take judicial notice at this time that it was the intent of the survey of the Land Department to establish a different line? In other words, not apply the idea or the principle of meander line to that, or must that be determined from the facts presented?

MR. ASHBURN: I contend that there is before your Honor, by way of pleadings, sufficient to answer the question that that was the intention. In other words, I contend your Honor can and should take judicial notice of the facts which spell out the legal conclusion that it was the intention to make the meander line the boundary line here. I also contend, and I contend this very seriously, that even upon counsel's own presentation of the matter the doctrine which he invokes cannot be applied, for the simple reason that it is but an indirect method of doing what his complaint seeks to do directly. His complaint does not talk about meander lines or sinuosities or slight

(Testimony of Charles A. Hale)

variations in Nature. His complaint says the federal government did not have any right to make this patent with reference to this line. And you will notice that he invokes in his complaint a survey which proceeds from point to point. The surveyor reported to the federal government and the federal government adopted his report, that he surveyed it and found the high water mark there. They then went to this point and found the high water mark there; then he went to this point and found it there. Each one of these little circles on this map is a place where the surveyor says that he found the high water mark.

THE COURT: What surveyor is that?

MR. ASHBURN: Norway, the government surveyor.

THE COURT: Oh, yes.

MR. ASHBURN: On which the patent was issued. Every one of those little circles there is where he definitely reports that he found the high water mark.

Now, counsel's contention, you will readily perceive, strikes down completely the Norway survey and everything based upon it, and seeks by indirection to question some 50 years later and substitute by oral testimony not the location of the meander lines between the meander corners as of 1880, but to substitute an entirely new description of that island in place of the one that the government surveyor found, and in place of the one that was incorporated in the federal patent. And I respectfully submit there is not a single decision which has been cited here which sustains any such extraordinary proposition as that; and I further respectfully submit that counsel cannot bring you any decision which says that in

this indirect manner the litigant can deny the efficacy of the federal adjudication as to where that line was. It might be that they would be permitted to show that between meander corner 5 and meander corner 6 it was a straight line and that there were some slight sinuosities, but no case which we have been able to find, or which I know, says in substance or effect a defendant can strike down all the meander corners, sweep them aside and set up an entirely new survey.

And the philosophy of these decisions upon which I rely, which were quoted in the Knight case, is that if you could substitute the ideas of witness or jurors or courts some 50 years afterwards in the place of the formal action of the federal government in the premises, the whole jurisdiction of the federal government would be swept aside and the security that it is intended to furnish would be gone.

* * *

THE COURT: I take it that this is clearly an attack upon the original survey. The original surveyor says that he found—whether he did or not—this to be the high water tide line, certain points there, and the plaintiff in this case is saying that he was incorrect, that that is not and was not the line of high tide at that time, I suppose. Now, is that open to attack? The position of the defendant is that Mr. Norway went down to that district and did, as the map indicates there, establish a meander line, surveyed that out and called that an island above high water line. The defendant says that in doing so Mr. Norway did not operate his instruments correctly; that

(Testimony of Charles A. Hale)

it is true a certain portion of it is above the line of high tide, but not all of it. Now, the question is, can that be done? That is the question that is presented here.

* * *

THE COURT: While that is true, yet at the same time I do not think that is what is the matter with this situation at all. I think that clearly it is not a question of sinuosities or immaterial variance, or representing a croked line, for convenience, by a straight line. That is not the question. The question is directly attacking the survey and the patent.

* * *

I am still undecided on the main point; being so undecided, of course, I would not grant the motion, but am compelled to hear the evidence; that is to say, I am not convinced, beyond a reasonable doubt; if you can use the expression, that the motion is well taken, and of course it is denied. The motion is denied. Proceed with the evidence."

Thereupon the said witness

CHARLES A. HALE

testified as follows:

That he was a civil engineer and had been a civil engineer for approximately forty years; that he has been employed continuously by the City of Los Angeles since 1917, and in the Harbor Department of said City since 1918; that he prepared a map showing the location of the area and land in dispute, said map being a diagram show-

(Testimony of Charles A. Hale)

ing the inner harbor of San Pedro, which map was made from the originals of numerous maps which were on file and of record in the Harbor Department of said City of Los Angeles; that the map was prepared under his supervision but not by himself; that it was a compilation from various maps, perhaps a dozen in number; that the said underlying maps had been only partly prepared by him and he could not tell what portion of them he had so prepared; that the said compiled map had been prepared on October 25, 1933, for the purposes of this law suit; that the outlines of the buff colored area on the north end of the Island were based on the Desserey survey; that the exterior lines of the Island were based upon the Government patent to Banning; i. e., the exterior lines of the buff portion; that the little circles found in those lines are the meander corners of the Norway survey; that the central portion of the Island as shown on the map is the parcel which the City bought from Hancock Banning; that the outlines of the white portion running up into the buff portion on the north end of the Island were an attempt to delineate the Desserey survey which was made in 1909; said map being offered in evidence, to which the defendants objected upon the following grounds:

"MR. ASHBURN: We object to that on the ground that no proper foundation has been laid, and calls for a conclusion and opinion, in the first place; it brings up the question of insufficiency of the complaint which I urged to your Honor the other day; it is wholly inadequate in that it merely ties in to some contour line of some survey which is not a matter of public record and not shown to be authentic; and this witness could not testify on this

(Testimony of Charles A. Hale)

subject unless he first assumed the correctness of this map, which has not been made a part of a public record, and not shown as a correct map in any particular.

Now, we expect, notwithstanding Mr. Butts' views in the premises, we expect to show your Honor that this Desserey survey is not correct. That is what we expect to show, and I think I can convince your Honor that they cannot lay the necessary legal foundation, in that they cannot prove it is correct. Now, if we take second-hand from Mr. Hale's evidence as to the correctness of this map, predicated on that other map, it seems to me we are starting out at a disadvantage.

Thereupon the said objection of the defendants was sustained, whereupon the plaintiff duly excepted. Said map was thereupon marked Plaintiff's Exhibit No. 1, for identification. Plaintiff offered in evidence a diagram prepared under the supervision of Charles A. Hale, purporting to represent the outlines of the land in dispute and described in plaintiff's bill of complaint, the portion in dispute between the parties being colored buff. It appeared that the said map was subject to the same objection as Exhibit No. 1 for identification, and objection thereto was sustained for the same reasons. Thereupon the following occurred:

"MR. ASHBURN: I will make the suggestion, if your Honor please, that if counsel will agree that this document, Exhibit No. 2 for identification, is not being received in evidence as evidence of the truth of the facts it represents, but merely a chart or diagram for the purpose of illustrating the claims of the City, it may be so

(Testimony of Warren Egbert)

used. I think, perhaps, that would meet the suggestion, or the point your Honor had in mind.

MR. BUTTS: That was all it was ever intended for, in the first place. I thought that I made myself plain. It was nothing more or less than a diagram that we could put on the blackboard.

THE COURT: For that purpose, naturally, it may be admitted.

MR. BUTTS: That is the only purpose of it.

THE COURT: Very well. But not as a delineation—not as a map, in other words, of the island.

MR. ASHBURN:—Just like you had drawn a picture on the blackboard illustrating the claims of the City.

MR. BUTTS: That is it.

THE COURT: Very well."

The same was admitted in evidence pursuant to said undestanding and marked Plaintiff's Exhibit No. 2.

WARREN EGBERT,

being first duly sworn, testified as follows:

That he is and for approximately forty years has been a civil engineer; that in the year 1899 he was in the employ of the Government of the United States and assisted in making a survey of Mormon Island; that he was the recorder and recorded the field notes of said survey, save and except two pages thereof. The witness

(Testimony of Warren Egbert)

was shown certain field notes (later received as Plaintiff's Exhibit 3) and identified the document as containing the notes of said survey of Mormon Island which was made on October 31, and November 1, 1899. He testified that practically all of the handwriting was his except one page, which he thought to be that of Mr. F. C. Turner, who was in charge of the surveying party. The notes were offered in evidence and objection was made upon the ground that there was no showing that they were correct nor as to who recorded the notes for Station 5. It was admitted by counsel for defendants that the notes came from the records of the office of the United States Engineers in Los Angeles, but it was not conceded that the same constituted a public record.

Counsel for defendants further objected upon the following grounds:

"MR. ASHBURN: It appears manifestly that there is no foundation laid for the document. Moreover, I now want to raise the point that a survey made in 1899, nineteen years after the Norway survey, could not be competent evidence of the conditions on the ground at the time the Norway survey was made, and if there is any doubt about that at all I have authorities I would like to present to your Honor, which are to this simple proposition, that although a fact of a continuous nature, when once established, may be assumed to have continued, unless the

(Testimony of David E. Hughes)

contrary be shown, that presumption does not run backward."

The witness further testified that he had had nothing to do with the said field notes in the last thirty-five years, that he turned them over to Mr. Turner at the time of the survey.

"MR. ASHBURN: I want it plain that these notes are incorrect, according to both this witness and Mr. Turner. That is the point I have in mind, and the evidence, if it is pursued, will develop it. We claim it is not correct."

DAVID E. HUGHES,

being first duly sworn, testified as follows:

That the field notes which had been exhibited to Warren G. Egbert were a record in the office of the United States Engineer in Los Angeles, and that they had been used by him for certain purposes during the time he was an employee of that office. Thereupon the field notes of the survey of Mormon Island were offered and received in evidence and marked Plaintiff's Exhibit 3. This was done over the objection of defendants, who asserted a right to cross-examine the witness with respect to the document before any ruling should be made.

[For a copy of Plaintiff's Exhibit No. 3 (Field Notes) see pages 2, 3, 4, 5 and 6 Book of Exhibits.]

CROSS-EXAMINATION OF WARREN G. EGBERT

That he did not record the field notes in the book which was Plaintiff's Exhibit No. 3, which related to the positions taken or the readings made from Station 5; that he did not know whether the notes were made by Mr. Turner or Mr. Smith; that he did not know whether or not the notes taken of the positions from Station 5 of the survey were correct or not; at the time of the survey there was another sort of island lying along the southeasterly portion of Mormon Island; that the first shots of this survey were made in that immediate vicinity; that he does not claim that the first shots, about sixty in number, which were marked "high water mark" in the notes were incorrect; that all notes up to Station 5, appearing to be more than sixty shots, are in his handwriting and are correct; the witness' attention was here directed to the deposition which was taken on the 11th day of December, 1930.

"Q I will ask you, specifically, if you did not testify at that time, reading from page 22, line 23, of your deposition: 'Mr. Watson Q: The mistake as to the correct designation of H.W.M.—that means "high water mark", doesn't it?

A Yes.

'Q The mistake as to the correct designation of H.W.M. in the field notes, Plaintiff's Exhibit A, to which you have just testified, do you recollect how that mistake occurred? A No, I do not..'

Do you recall that testimony?

A I do not recall it at all.

(Testimony of Warren Egbert)

Q Do you say that you did not so testify?

A No, I do not say that I did not. I say I do not recall it."

The witness' attention was then directed to a certain map which was later received as Plaintiff's Exhibit 5 and testified that he had checked it over with Mr. Hale before his deposition was taken, that he did not recall testifying that the observations designated on said map as 1-12 up to and including 1-29 were erroneous in that they had been marked "high water mark" when they should not have been and that he did not recall testifying that after leaving 1-29 he went across to 1-30 and then around the little island and marked all of the points "high water mark" and that the notes were incorrect in that respect; that he would not say that he did not so testify but merely that he did not recall it.

"Q Now, I will go back to the deposition and read from that, and ask you these specific questions: At page 20 of the deposition, line 2—I will have to stand over here as I read—

'Q By Captain Watson: Now, referring to the points observed from Station 6 on November 1, 1897, of Mormon Island Traverse that is shown in Plaintiff's Exhibit A, and plotted on Plaintiff's Exhibit B by the line indicated by 6-5, 6-6, 6-7, 6-8, 6-9, 6-10, 6-11, 6-12, 6-13, 6-14, 6-15, 6-16, 6-17, 6-18, 6-19, 6-20, 6-21, 6-22, 6-23, 6-24, 6-25, 6-26, 6-27, 6-28 and 6-29, and also to the point observed from Station 1 on October 31st of Plaintiff's exhibit indicated by the figures 1-12, 1-13, 1-14, 1-16, 1-17, 1-18, 1-19, 1-20, 1-21, 1-22, 1-23, 1-24, 1-25, 1-26, 1-27, 1-28 and 1-29, it appears that both of those observa-

tions, lines of observations, are designated as H.W.M. Will you please state whether or not in your opinion as a civil engineer one of those lines are incorrect designated as H.W.M. ?'

After objections and colloquy between counsel, did you not at page—did Captain Watson not at page 21, line 7, modify his question as follows: 'The question was to refer to the field notes—you had that book before you then, didn't you?

A Yes.

Q 'Mr. Watson: Referring to the field notes, Plaintiff's Exhibit A, as depicted on the map, Plaintiff's Exhibit B, now, will you please answer the question? A One of them is in error.'

Did you so testify?

A I must have.

Q Didn't you then, later in the same examination of Captain Watson, testify as follows:

'Mr. Watson: Q The mistake as to the correct designation of H.W.M. in the field notes, Plaintiff's Exhibit A, to which you have just testified, do you recollect how that mistake occurred? A No, I do not.'

Didn't you so testify?

A I must have.

Q Well, now, in the light of the refreshment of your recollection that you have just had, you do recall that at the time you gave this deposition in 1930 you took the position that part of your field notes were incorrect, didn't you?

A Yes.

(Testimony of Warren Egbert)

THE COURT: Pause there a moment. The answer was, one of them is incorrect?

A Yes.

THE COURT: One of what?

A One of the lines.

THE COURT: One of the lines that have been indicated by counsel?

A. Yes. It is obvious that it must be. There could not be two high water lines parallel to each other, practically, parallel to each other."

That both of said lines were reflected by the field notes made by the witness.

"MR. ASHBURN: Your recollection having been thus refreshed, you cannot say now definitely and positively that those field notes to which I have just particularly and specifically directed your attention were correct, can you, Mr. Egbert?

A No."

That smith was not in the field party a the time of this survey but was doing office work; that Mr. Turner was at the instrument, there being four or five in the party; that the purpose was to make a traverse of the Island; that they wanted the high water mark and he was simply the recorder writing down the notes as they were taken just as a stenographer might take a letter; that they had a man out with a rod which would be located at certain intervals and that if he placed it below a certain elevation at which they were running the instrument Mr. Turner would say to raise it or lower it, to go to higher ground or lower ground; that the witness was standing with the

(Testimony of Warren Egbert)

man leading the instrument; that he, Mr. Turner, told the rodman to go higher or lower because he was running the survey on a contour on a line of equal elevation; that when the rodman set his rod on ground that was lower than this contour Turner would tell him to raise it or lower it as the case might be; that when the rod was placed on the proper contour Turner determined the location at the point with his transit and called the angle to the witness who recorded it.

"THE COURT: What is your reason for believing that one of the lines was incorrect?

A Because as it shows on the plat, there were two—there are two lines that were each marked 'high water mark'; they were practically parallel lines, and one must have been erroneous.

THE COURT: You are not meaning to say that you incorrectly took down the figures given you by the man reading the instrument?

A No, sir.

THE COURT: Naturally, it being the same ocean, there could not be two lines of varying elevation marking the same thing.

A Exactly."

That he did not know whether the first sixty recordings which were taken from Station 1 were correct or not; that the letters H.W.M. in the field notes are abbreviations for high water mark.

(Testimony of Frederick C. Turner)

FREDERICK C. TURNER,

being first duly sworn, testified as follows:

That he was a civil engineer and was formerly in the employ of the United States Government and had made a survey of the inner harbor of San Pedro and Mormon Island in the months of October and November, 1899; that he had worked for a great many years in the harbor work for the United States Government, making preliminary studies and plans for harbors; that the survey of Mormon Island was made for the purpose of delineating natural conditions upon which to make certain river and harbor improvements; that after his survey had been made he made a report covering the same to his superior officer, Captain Meyler; I recall somewhat the making of a survey of Mormon Island. In my party were Mr. Egbert, who was recording, and Mr. J. G. Smith was doing calculation work and helping in the field; a man named Grunow was rodman and a man named Barce was leadsman. Most of the work was sounding work. There were two other men whose names I do not recall. I was in charge of the work. That in his survey of Mormon Island he went to the southerly end of the Island to set up his instrument, either on high ground or on an old barge; that there was a barge that had been abandoned, wrecked and pulled up on the shore and it made a convenient footing; that he did not recall whether he set his instrument on the barge or on high ground but he thought it was on the high ground.

"MR. ASHBURN: We object to this testimony and survey made by Mr. Turner, or anything he did in con-

nection with it, in 1899, upon the ground, first, that it is an attempt to defeat the effect of the government patent which was based upon the survey of 1880, and then, if your Honor rules against us on that, we object on the ground that 19 years after the Norway survey is too remote, particularly as there is an utter absence of foundational evidence in that there is no showing that the conditions in 1899 were the same as in 1880, and if the purpose of that examination were to show them different in 1899 from what they were reported in 1880, then counsel digs his own foundation from under him, and shows the evidence is not competent.

THE COURT: Overruled."

That he did not know whether he started the rodman on the high water mark or on the low lying land for the purpose of outlining the edge of grass.

"Q BY MR. BUTTS: Did you locate your rodman on what you considered the high water m[illegible]?

A Yes sir."

That he determined what he considered the high water mark by observation of natural conditions, namely, the appearance of drifts, the character of the vegetation and general appearances; that after thus locating the rodman he sent him around on that same general contour or level, directing him from the instrument as to the height that he should hold the rod; that he directed the rodman to put his rod at a certain point which the witness determined was the high water mark; that he read with his instrument level, as set by the level bubble, and got the reading on the rod and that Mr. Egbert's description of the

(Testimony of Frederick C. Turner)

process was substantially correct, except that Egbert failed to say that the location of each individual point was done by stadia; that he ran a contour around the Island at what he considered high water mark and also determined the edge of grass; that Captain Meyler said to establish the high water mark and he also wished to limit the edge of the grasses, patches of which grew all about the harbor; that Mormon Island was entirely surrounded by water and that the area was covered with two kinds of grass, a tall grass which grew next to the water and a short grass of a different species which grew on land of slightly higher elevation than that upon which the tall grass grew; that he was instructed by his superior officer to show the high water mark and also the edge of grass wherever it might appear; that upon commencing his survey he went to the southerly end of Mormon Island and located what he determined to be high water mark by an inspection of the ground and the line of drift, and also from the vegetation which existed at that place; that he located his rodman on what he considered to be high water mark and then made a traverse around Mormon Island on the same contour and at the same elevation which he originally determined to be the high water mark. A certain map entitled "Inner Harbor of San Pedro, Survey of October and November, 1899, made under the direction of Capt. James J. Meyler, Corps of Engineers, U. S. A., by F. C. Turner, Assistant Engineer" was then shown to the witness, who said that it was a map of his said survey which was made under his direction, part done by him personally and part by Mr. Smith; that the map so shown him was not the one which was sent

(Testimony of Frederick C. Turner)

to Washington; that the latter map was platted by Mr. Moran, draftsman in the office of the United States Engineers in Los Angeles and was so platted from the notes of said Turner survey; that the map shown the witness was the last map on which he worked; that it was turned over to Mr. Moran, who then made up a map which was sent to Washington along with Captain Meyler's report and that this last mentioned map is not the one just shown to the withess; that he did not work on the one which went to Washington and cannot of his own knowledge say that it was the same as the map shown him; that the one which went to Washington with the Meyler report was published by the Government; that the Moran map was based upon the notes of the Turner survey and made independently of the map just shown the witness, which last mentioned map remained in the local engineer's office.

"MR. ASHBURN: Now; if your Honor please, we object to the introduction of this map upon the ground that it falls strictly within the rule which your Honor made this morning with respect to the buff map, as well as upon the other objections which I stated, namely, that it is an attempt to dispute the Turner survey and too remote in point of time, and no foundation.

MR. BUTTS: I want to call the Court's attention to this fact: This is the official record in the office of the United States Engineer. I can call a representative of the United States Engineer's office and ask them again if it is on file and a part of the records there, if that is necessary.

MR. ASHBURN: That does not make it an official record within the law relating to the introduction of maps

(Testimony of Frederick C. Turner)

in evidence. There is a line of authorities that is very definite on that, and I want to read your Honor a very pertinent quotation from a Massachusetts case, and it is the Federal rule, as I will show you in a minute."

Thereupon, authorities were cited by counsel for defendants to the effect that a map, which is one of a series of preliminary maps upon which final official action is not based, is incompetent because merely a preliminary study.

"THE COURT: As a matter of fact, there is little ground to think that this map is any different from the official map.

MR. ASHBURN: Yes, there is. That is the point of my objection. The published map is different, because I know it is different.

THE COURT: Is the published map available?

MR. ASHBURN: Yes sir.

I want your Honor to understand that my objection is based in part on the fact which I may not have called to your attention, that the map is based upon notes which are not correct, and not shown to be correct."

The objection was overruled and the said map was received in evidence as Plaintiff's Exhibit 4. That the figures on the map are soundings and represented depths of water and the figures which have a minus sign before them represent the depth in feet above the datum plane of mean lower low water, and those figures where the minus sign is absent represent the depth in feet below the datum plane of mean lower low water; that thereupon the witness was shown a replat of the field notes of the survey that was made by him in 1899, which plot sheet had

(Testimony of Frederick C. Turner)

been prepared by Charles A. Hale and David E. Hughes. Mr. Turner testified that he had checked the plot sheet about three years ago in conjunction with Mr. Hale and knew that everything which was contained in the field notes appeared on the plot sheet, except that there was one discrepancy between the notes and the plat sheets, as to which the witness said his memory was very hazy. The said document was thereupon offered in evidence.

[For copy of Plaintiff's Exhibit No. 4 see page 7 of Books of Exhibits]

"MR. ASHBURN: We object to it on the ground it is an attempt to impeach the Norway survey, too remote in point of time, and there is no foundation laid in showing it is based upon incorrect notes, based upon a survey of Mr. Turner, nor is the witness able to state that it is so correct.

* * *

MR. BUTTS: It is my desire, at least, to introduce this map, the Turner survey, which he established as what he thought, or what he determined to be the high water mark.

THE COURT: That is 5.8?

MR. BUTTS: He did not know what it was at that time. He established it from observation, what appeared upon the ground, determined it in that manner, and om that determination carried that level around the island, carried the contour around the island."

(Testimony of Mr. Hale)

MR. HALE

was recalled and testified as follows:

That he prepared the plot sheet of the Turner field notes and that the plot sheet showed everything that was shown in the field notes and did not contain anything that was not shown in the field notes excepting the figures represented by 1-1 and other figures with the numeral then followed by the hyphen and another numeral, which indicated that 1-1 was the first observation taken from Station 1 and that 6-1 would be the first observation taken from Station 6. The plot sheet was offered and received in evidence and marked Plaintiff's Exhibit No. 5. [For copy of Plaintiff's Exhibit No. 5 see page 8 Book of Exhibits.] The witness further testified that the heavy blue line on the said Exhibit represents the high tide line and the light blue line represents the edge of grass; that H. W. M. on the map stands for high water mark and that that abbreviation was taken from the field notes; that the line extending from 6-29 to 6-7 is actually shown as H. W. M. or high water mark in the field notes; that the witness could not say whether or not that was erroneous but he did say that it was so shown as H. W. M. in the field notes.

CROSS-EXAMINATION OF MR. HALE

Referring to the observation points from 1-12 to 1-29 which are shown in notes as high water mark, and which are connected on the map by a light blue line, it is true that at that place both the heavy blue line and the light blue line represent high water mark. The light blue line

(Testimony of Mr. Hale)

represents one thing in one place and another in another place. For instance at 4-79 it represents edge of grasses but at 1-27 it does not represent high water mark, although the notes say that it does. The notes say that each of these notations from 1-12 serially up to 1-29 represent high water mark. I have delineated those stations on this map in a light blue line, which is the same line I have used to delineate the stations shown in the notes as edge of grass. The observations from 1-30 to 1-42, on the little island lying southeast of Mormon Island, are all marked high water mark. On my map I have shown it with a light blue line as edge of grass.

"Q I mean you have used the edge of grass line to depict what the notes show is high water mark in that respect, haven't you?

A Well, the notes are not consistent in that place. That—

Q Well, that is one thing I am trying to develop. You don't claim the notes are correct, do you?

A No, I do not."

The 1-30 was the 30th site taken from the station and is shown in the notes as high water mark. Likewise 1-69 was shown the same way. At 1-36 the notes say "H. W. M. on Mormon Island S. of slough (bold bank)". I have drawn that straight through with a light colored line just as if it were edge of grass, and I have followed that same process of puting my own interpretations upon these notes and construing them to be edge of grass rather than high water mark until I get up to 1-42. The survey then passed across this little island to 1-43

down around the westerly side of it to and including 1-69, marking all of those points in the notes as high water mark.

"Q And you have substituted your own interpretation, and said notes say 'high water mark'; as a matter of fact, the notes must be wrong and that must be the edge of grass, isn't that true?

A I know that there is not any high water over on that side. It would have to be edge of grass.

Q Then you did substitute your own interpretation for what the notes said about the survey?

A I did, as far as the line is concerned.

Q And your present contention is that the notes in those respects are wrong, isn't it?

A In the respect of high water, yes.

Q You say that they called edge of grass high water?

A Yes sir.

Q Now, you don't derive that from the notes, do you?

A Well, there is a conflict in the notes—

Q All right.

A —and in the conflict it makes me change my opinion from what the notes say.

Q Then you do find a definite conflict in those notes as to where high water mark is? Is that correct?

A Not in all cases, no.

(Testimony of Mr. Hale)

Q Well, you spoke about a conflict from which you deduced your interpretation of the thing. There must be a definite and easily discernible conflict there, isn't that right?

A Yes. If you use your reason you can see why.

Q And that is what you did, apply your reason to Turner's notes, and you concluded that Turner was right here, and he was wrong there, is that what you did?

A As far as high water mark.

Q And you are not purporting now, are you, to have put on this map what you know of your own personal knowledge about the elevation of the land in 1899?

A I was not there in '99.

Q This is just your interpretation of his notes?

A Yes sir.

Now, as we go across from 1.42 to 1.43 we will see that 6.23 is marked edge of grass, and we come down to 1.43 we see it is high water mark. Also, over here we see 1.29, 1.28 marked high water mark, and 5.11, I can't see where that arrow goes, oh, yes, here it is up here 'edge of grass'.

Q. BY MR. ASHBURN: Those are definite conflicts in the notes, aren't they?

A Yes sir.

(The witness) I do not claim any personal knowledge of conditions existing there in 1899.

(Testimony of Mr. Hale)

Q And when you pass over the bold bank down here, you just mean to say you think Turner was wrong about that?

A I think there could be a bold bank below the line.

Q And you mean when Turner differentiates this as a bold bank, do you think he meant bold bank under the water?

A Under high tide, yes.

Q From what do you deduce that?

A Oh, I can't say.

Referring to the northerly portion of the map, Station 4-54 is marked 'edge of grass' in the notes but I have depicted it on the map as high water mark. In other words, I reverse my interpretation when I get to the north edge and what Turner calls 'edge of grass' I call 'high water mark'; at the south end what he calls 'high water mark' I call 'edge of grass'.

Q You were talking a moment ago about a definite conflict in the notes, and what you referred to was the fact that from 6—

THE COURT: Well, Mr. Ashburn, I think the cross-examination, that is, the testimony is clear enough, and I think that is sufficient.

MR. ASHBURN: I would like to go just one step and show you that the Turner notes have two distinct high water marks, from 6.5 southwardly.

THE COURT: That is clear. I understand the testimony on this matter, that is clear."

(Testimony of Fredefick C. Turner)

FREDERICK C. TURNER

was recalled and testified as follows:

That he made a report of his survey to his superior officer, Captain Meyler, and he was shown a certified copy of House of Representative Document No. 357, which contained a copy of his report, which report, together with the finished map of the survey of the inner harbor of San Pedro as made by Mr. Turner attached to said report, was offered and received in evidence and marked Plaintiff's Exhibit No. 6. This evidence was received after and over the following objections on behalf of defendants:

"MR. ASHBURN: And to which we object on the ground that it is incompetent, irrelevant and immaterial and if it tends to impeach the Norway survey, it is too remote in point of time, in that it contains a map, based upon the Turner notes, which map must necessarily be erroneous, if it is based upon notes which are firmly established to be erroneous, and which official map was made in the course of an investigation by the War Department, which was not directed towards a determination of boundary lines or high tide lines or anything else that would furnish any immediate necessity or motive for making a definite determination of high tide line on Mormon Island."

(Testimony of Frederick C. Turner)

[PLAINTIFF'S EXHIBIT NO. 6.]

HOUSE OF REPRESENTATIVES

56th Congress, 1st Session. — Document No. 3[illegible].

# EXAMINATION AND SURVEY OF INNER HARBOR AT SAN PEDRO, CAL.

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LETTER
From
THE SECRETARY OF WAR,
Transmitting,

With a Letter From the Chief of Engineers, Reports of Examination and Survey of Inner Harbor at San Pedro, Cal.

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January 30, 1900.—Referred to the Committee on Rivers and Harbors and ordered to be printed.

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War Department,
Washington, January 29, 1900.

Sir: I have the honor to transmit herewith a letter from the Chief of Engineers, United States Army, dated January 26, 1900, together with copies of reports from Capt. James J. Meyler, Corps of Engineers, dated March 31, 1899, and January 6, 1900, the former of a preliminary examination and the latter of a survey of inner har-

(Testimony of Frederick C. Turner)

bor, San Pedro, Cal., made by him in compliance with the provisions of the river and harbor act of March 3, 1899.

Very respectfully,

Elihu Root,
Secretary of War.

The Speaker of the House of Representatives.

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Office of the Chief of Engineers,
United States Army,
Washington, January 26, 1900.

Sir: I have the honor to submit herewith copies of reports, dated March 31, 1899, and January 6, 1900, with map, by Capt. James J. Meyler, Corps of Engineers, upon preliminary examination and survey, respectively, of inner harbor, San Pedro, Cal., made to comply with the requirements of the river and harbor act of March 3, 1899.

Work upon improvement of this locality, heretofore known as Wilmington Harbor, has been carried on for the past twenty-eight years,



but appropriations have been discontinued since the selection of San Pedro Bay as the site for a deep-water harbor of refuge, under the provisions of the river and harbor act of June 3, 1896.

The engineering features of the question, as well as the extent of the improvement justified by existing and pros-

pective commercial interests, are carefully and comprehensively discussed by Captain Meyler, who states that, in his opinion, it appears desirable now to enter upon a general project for securing 24 feet of water at mean low water from the ocean to the head of the inner basin, to be obtained by dredging a channel 400 feet wide from the ocean to the lower end of the wharfs; by dredging the interior channel between harbor lines as far as the head of the wharfs, and by dredging the inner basin from the upper end of the wharfs to Wilmington, and from the Southern Pacific trestle to Terminal Island; also the extension of the jetties at the entrance to 24 feet of water, the replacing of the single work of the east jetty with a rubble wall, and the construction of a restraining wall or dike at the head of the lagoon to divert the storm waters of Los Angeles River. The cost of this work, estimated at $2,159,100, includes contingencies and the price of land required for construction of the proposed dike, it being contemplated that the excavation of material shall be done by a Government dredge.

In view of the great extent of the dredging, which would probably require a long period of time for its completion, and in order that the public would be enabled to benefit by the improvement as it progressed, Captain Meyler states that it would be extremely desirable to begin operations under the general project outlined by work upon a portion of it, as follows:

To dredge a channel 20 feet deep and 400 feet wide from the ocean to the lower end of the wharfs; to dredge between harbor lines from the lower to the upper end of the wharfs to a depth of 24 feet; to dredge a turning basin

1,600 feet in diameter between the upper end of the wharfs and the lower end of Mormon Island to a depth of 24 feet; to replace with stone the decayed timber in the single work of the east jetty, and to build the restraining dike at the head of the lagoon in order to divert deposit from the Los Angeles River.

The cost of this work, including a dredge at a cost of $92,400, is estimated to be $550,000, which amount, if the project be adopted, should be appropriated for the first three years' work, in which time the partial improvement as outlined could be completed.

In the report on preliminary examination of the locality the local officer stated that in his opinion the harbor is worthy of improvement by the United States, and his views were concurred in by Col. S. M. Mansfield, Corps of Engineers, division engineer; but in indorsement of January 16, 1900, on the report on survey, Colonel Mansfield recommends, for reasons stated, that the further improvement of Wilmington Harbor be deferred for the present, and that only such expenditures be made upon it as will insure it against injury, by replacing with stone the worm-eaten and badly decayed timber work of the east jetty.

Very respectfully, your obedient servant,

John M. Wilson,
Brig. Gen., Chief of Engineers,
U. S. Army.

Hon. Elihu Root,
Secretary of War,

San Pedro, Cal. 3

## PRELIMINARY EXAMINATION OF INNER HARBOR AT SAN PEDRO, CAL.

United States Engineer Office,
Los Angeles, Cal., March 31, 1899.

General: I have the honor to submit the following report on the preliminary examination of the inner harbor, San Pedro, Cal., as provided for in the river and harbor act of March 3, 1899.

The inner harbor, San Pedro, Cal., heretofore officially known as Wilmington Harbor, California, has been under improvement by the General Government for the past twenty-eight years. Formerly know as Wilmington Estuary, the first examination thereof was made in 1869 by Maj. R. S. Williamson, of the Corps of Engineers, who recommended it as worthy of improvement by the General Government. The improvement began in 1871, under a project by Maj. G. H. Mendell, Corps of Engineers, for the construction of 6,700 linear feet of timber and stone breakwater from the western end of Rattlesnake Island to Deadmans Island.

The estimated cost of the original project was $530,000, with which it was hoped to obtain a channel depth at the entrance of 10 feet at mean low water. The work was eminently successful, and in 1881, ten years after beginning the improvement, a second project by Lieut. Col. G. H. Mendell, for an increase in the channel depth at the entrance from 10 feet to 15 feet at mean low water, was approved. This project contemplated the excavation of a reef of hardpan opposite Deadmans Island to a width of

400 feet, the extension of the jetty beyond Deadmans Island and the construction of a second jetty on the west side of the channel entrance, both into the bay of San Pedro to a depth of 18 feet, the excavation of sand between the jetties and the elevation of the existing works to 2 feet above high water. The estimated cost of work to be done under the second project was $291,766, the work to be done in two years' time. However, it was anticipated that the material to be dredged from the reef would be suitable for extending the west jetty, but it was mostly found to be unsuitable and could not be used for that purpose. This, combined with the fact that the appropriations were made in small sums and spread out over a number of years, and also that the changes in conditions and physical circumstances at the entrance due to delay in the work rendered it impracticable to carry out the work in the sequence intended, increased the estimated cost to $400,000.

The appropriation of $51,000 made by river and harbor act of July 13, 1892, filled out the amount estimated for this further improvement of the inner harbor with a view of obtaining a depth of 15 or 16 feet at the entrance at mean low tide. No additional estimate was at that time presented by the engineer officer in charge for the reason, as stated by him in his annual report of the work, that it was desirable to ascertain what effect the completion of the work in progress would have upon the deepening of the channel. At the same time the enlargement of the interior basin and the dredging of the inner channel was had in view, so that any vessels entering the harbor could lie at the wharfs at the lowest stage of the tide. A survey

for this latter object was made in 1893, and a report submitting estimates amounting to $392,725 for the further improvement of Wilmington Harbor was presented by Lieut. Col. W. H. H. Benyaurd under date of June 8, 1894. In obedience to a resolution of the United States Senate,

4 San Pedro, Cal.

the Chief of Engineers submitted this report on February 7, 1895. I respectfully invite attention to the report, which is published in the Chief of Engineers' Report for 1895. The project, submitted by Lieutenant-Colonel Benyaurd, was for a channel depth of 18 feet at mean low water, and the expenditure of the amount estimated, $392,725, was authorized by the river and harbor act of June 3, 1896, but with the proviso that the appropriation should not be expended except upon the condition that the Board, provided for by the same act to consider the relative merits of proposed outer harbors at Santa Monica and San Pedro, should decide in favor of Santa Monica. The item in the act was in these words:

Improving Wilmington Harbor, California, in accordance with the project submitted February seventh, eighteen hundred and ninety-five, fifty thousand dollars; Provided, That contracts may be entered into by the Secretary of War for such materials and work as may be necessary to complete said project, to be paid for as appropriations may from time to time be made by law, not to exceed in the aggregate three hundred and forty-two thousand dollars, exclusive of the amount herein appropriated; but no such contracts shall be entered into until the Board provided for in this Act to determine the location of a

deep water harbor for commerce and of refuge, as between Port Los Angeles in Santa Monica Bay and San Pedro, in the State of California, has made its report to the Secretary of War, and not at all if said report shall be in favor of San Pedro as the location of said harbor.

The Board having selected San Pedro, the expenditure of the $50,000 appropriated is prohibited, and no work has been done on the harbor since 1894.

The total amount appropriated for this work, exclusive of the $50,000 above mentioned, is $955,000, and the total amount expended to the close of the last fiscal year is $953,539. From an original depth of 1½ feet at mean low water at the entrance a depth of 14½ to 15 feet at the same stage has been obtained. There is a channel depth of 16 feet or more at mean low water from Deadmans Island to the head of the wharfs, but with lesser depths along most of the wharf front on both sides of the harbor. For the past five or six years vessels drawing from 18½ to 19 feet have been able to enter the harbor at a high stage of tide, but they are unable to remain at the wharfs at lower stages of the tide. Steamships which find no difficulty in entering, on account of depth of water, yet find it impossible to turn easily, preparatory to departure, at the lower wharfs, because of the narrow channel and shallow depth along the wharf fronts. Were the channel widened and the upper part of the inner basin dredged this difficulty would be entirely obviated, as they would then go to the upper part of the inner harbor and turn readily, without danger to other vessels or fear of getting aground. Formerly all deep-draft vessels lying in the outer anchorage transferred their entire cargoes to

lighters, which were towed into the inner harbor; but of recent years many of these vessels have lightered sufficiently to be able to enter and unload at the wharfs. With increased depth of water along the wharf fronts there would undoubtedly be an increase in this method of unloading deep-draft ships, and undoubtedly the wharf fronts would be extended by the building of additional wharfs, not only along both sides of the harbor, but also around the sides of the upper basin.

Commercial statistics for the year 1871, when the improvement began, show that the amount of freight entered and cleared for that year was 50,059 tons. In 1888 this amount was increased to 452,637 tons, the harbor in that year doing its maximum business for any one year,



the total amount of revenue collected for the year being $167,693.97. There has been a very perceptible falling off during the last few years, due, no doubt, to the fact that wharfs have been built at Port Los Angeles (Santa Monica), Redondo, and Newport, and each of these places obtains its own fair share of the coasting trade. However, the increase of commerce in Wilmington Harbor has been fully commensurate with the amount of money spent in improvements there. The coasting trade, consisting principally of the importation of lumber, forms the most important part of this commerce. Maritime exports of this region are at present insignificant, and the imports from foreign ports have thus far been, with the

exception of coal, of little consequence. However, back of Wilmington Harbor lie the richest and most fertile lands in Southern California. They are easily accessible by land or sea. The facilities for irrigation are excellent and capable of immense future extension and development. The principal products are fruits, wines and brandies, vegetables, and grain, by far the larger part of which is now transported by rail, the most advantageous markets being found in our own country.

The commercial center of this valuable region is Los Angeles, situated about 22 miles inland from Wilmington Harbor. This city has grown with wonderful rapidity and has now a population of over 100,000. It is the point of intersection of the southern transcontinental and coastwise railway lines, and, no doubt, it is destined to be the commercial metropolis of southern California. It is the probable future development of this city and the productive territory tributary thereto that calls for increased harbor facilities in the inner harbor at San Pedro, and a continuance of the improvements that have thus far proved so successful. With work on the breakwater for the outer deep-sea harbor about to begin, the prospective demands of commerce become still greater. If a depth of 18 or 20 feet, at mean low water, can be maintained at the entrance and through the channel of the inner harbor up into the inner basin, vessels drawing 24 or 25 feet of water will be able to enter and lie alongside the wharfs

while unloading. The inner harbor is capable of furnishing about 4 miles of available water front, though at present not much more than 1 mile of this is utilized. Besides increasing this present limited wharf front the widening of the inner channels would also benefit the channel depths by increasing the volume of the tidal prism. In my opinion the inner harbor is well worthy of further improvement by the General Government. I estimate that a survey, such as is necessary for the preparation of a report and estimate of cost of the improvement, justified by the commercial interests involved, would cost $2,000. This is based upon the assumption that it will be necessary to make but few borings for the purpose of determining the nature of the material to be removed. Should the discovery of strata of compact clay or hard pan or ledges of stone necessitated a comparatively large number of borings the cost of survey would be increased to $2,500.

Very respectfully, your obedient servant,

James J. Meyler,
Captain, Corps of Engineers.

Brig. Gen. John M. Wilson,
Chief of Engineers, U. S. A.

(Through the Division Engineer.)

(Testimony of Frederick C. Turner)

6 San Pedro, Cal.

[First indorsement.]

U. S. Engineer Office, Pacific Division,
San Francisco, Cal., April 3, 1899.

Respectfully forwarded to the Chief of Engineers, U. S. A., with the views of the district officer concurred in.

S. M. Mansfield,
Colonel of Engineers, Division Engineer.

[Second indorsement.]

Office Chief of Engineers,
U. S. Army,

August 14, 1899.

Respectfully submitted to the Secretary of War.

In accordance with the provisions of the river and harbor act of March 3, 1899, a preliminary examination has been made of the inner harbor, San Pedro, Cal.

The locality is reported to be worthy of improvement, and I recommend that a survey be made and the cost of improvement be estimated.

A. Mackenzie,
Acting Chief of Engineers.
War Department,

August 24, 1899.

Approved.

Elihu Root,
Secretary of War.

(Testimony of Frederick C. Turner)

## SURVEY OF INNER HARBOR AT SAN PEDRO, CAL.

United States Engineer Office,

Los Angeles, Cal., January 6, 1900.

General: I have the honor to submit the following report of a survey of the inner harbor, San Pedro, Cal., made in compliance with the river and harbor act of March 3, 1899, and assigned to my charge by your letter of August 25, 1899. In compliance with your previous instructions a preliminary examination of this harbor was made in March, 1899, and a report thereon, to which I respectfully invite attention, was submitted under date of March 31, 1899. In this report, after giving a brief history of the improvement of the harbor by the General Government, and of the results attained and the cost of same, I stated that in my opinion "the harbor is worthy of further improvement by the General Government."

The survey, which was recently made under my direction, covered the inner harbor from the head of the lagoon to the entrance. The map which I forward herewith shows, in addition, the outer breakwater now in process of construction and the proposed harbor of refuge and commerce which it will protect. This map has been prepared in accordance with all available data; the nature of the bottom has been examined, a large number of test borings having been made for that purpose; the condition of the wooden single work and the training walls of the dredged cuts and blasted reef has been investigated; and the effect of

the tides and winds, of the prevailing currents and swells of the sea has been carefully considered. As a result of this study we find at the entrance to-day a depth of over 15 feet of water where originally there existed but 1½ feet. According to the old rule that the tonnage capacities of harbors vary directly as the cubes of their bar depths, this increase of 13½ feet has made the tonnage capacity of this harbor 1,000 times as great as it was when the improvement began. The success of the work from an engineering point of view has attracted the attention of engineers far and wide; and it has frequently been stated that nowhere in the world has there been a more successful work of harbor improvement, or one where the proportional increase of depth obtained has been greater. That such splendid results have been possible is due entirely to the naturally favorable conditions existing there. The permanent improvement of a harbor entrance on a sandy coast has long been recognized as one of the most difficult problems of maritime engineering; and it is doubtful if upon a more exposed coast any improvement of so small a harbor could have reached so successful a result.

The great obstacle to the improvement of channels of this character is the prevalence of sand in a movable position; not only that which is visible as in the dunes, and in the great areas just above high water and exposed at low tide, but also that forming the foreshore, the shoals and bars, and held in suspension in the ever-moving waters. It is this movement of sand down the coast that has long been the beté noire in works of harbor improvement on

the Atlantic coast, and the history of many such works shows that frequently the depth of water on a bar available for navigation varies in a short time as much as 3 feet or more, depending upon the strength and direction of the prevailing winds. The history of the improvement of the inner harbor at San Pedro, and a careful study of the movement of sand about its well-protected entrance, shows an entirely different state of affairs. While the small stream which still empies its waters into the head of the lagoon was undoubtedly at some distant time a great river, it now results in but little deterioration to the channels of the harbor by depositing material brought down from the interior. It is true, that in times of heavy freshets considerable detritus is dropped by the river waters in the head of the inner basin, and a comparison of the map of the recent survey with that of the survey of 1883 shows a decrease in channel depths in the upper basin of at least 1½ feet. For this reason and to prevent the further formation of shoals and the filling in of the channels, it has long been considered desirable to entirely cut off the river from ingress into the harbor, and by means of a restraining wall or dike cause it to empty all of its waters into the ocean through its mouth near Long Beach, some 3 or 4 miles eastward.

Beyond this storm-water effect of the river in the upper basin the waters of the inner harbor have shown themselves to be essentially nonsilt bearing. The channel below the railroad wharfs is wider tha nabove, and the conditions are extremely favorable for the deposition of sediment, yet such is found to be very little the case. The map shows that the channel from the lower end of the

wharfs to Deadmans Island, which was dredged in 1891, has fairly held its own, both as regards width and depth, while directly at the entrance and on the bar outside there has been a gradual increase in depth of water,



due to the scouring action of the ebb tide. From the lower to the upper end of the wharfs but slight shoaling has taken place, and this is supposed to be due in large part to the fact that dredging done by private parties, while resulting in increased depths along their own wharf fronts, has also caused shoaling elsewhere by the deposition of a portion of the dredged material.

With the conditions now obtaining, the ebb flow has been able to scour the entrance over 15 feet deep. To increase this depth, the entrance needs increased scour. Increased scour can only be created by increased velocity, in its turn to be created only by an appreciable increase in the size of the tidal prism, since any further restriction of the entrance is impracticable and undesirable. The tidal prism may be sensibly increased by dredging out all of the shoal places and marsh lands in the upper basin, but the resulting increased velocity of flow of the ebb tide and the increased depth due to greater scouring effect would not be commensurate with the cost of the necessary dredging. Not only would such increased depth be obtained very slowly, but the maximum entrance depth to be obtained under this method of equilibrium of natural forces would undoubtedly in a few years fall short of that which the commercial interests involved would demand. In the early years of the improvement of the inner harbor considerable dependence was placed upon the

close piling, the double work, and the training wall of the east jetty to bring about the desired results, by simply forming a nucleus along which the sand should form a durable, permanent barrier. It was confidently expected that Rattlesnake Island would ultimately be extended, by continual accretions of sand on its west end, to Deadmans Island. The growth of the island in that direction was still going on in 1871, though very slowly, and its free end is known to have advanced several hundred feet during the previous fifty years. In addition to the mass of sand brought to the island from the bluffs to the east by the wind and surf, there was also a large amount of it brought thither by the strong littoral current which here sets up, or westwardly, along the coast. In opposition to this creating force was the eroding force of the strong ebb tides, ever working to keep open a passage; and there can be little doubt now that these two opposing forces had almost reached a state of equilibrium when the United States began the improvement of the harbor. At any rate, it has since been found that the dependence upon the formation of a sand barrier along the jetty was not justifiable.

There has certainly been little advance of the foreshore due to an accumulation of material; and the whole history of the improvement shows that the progression of the bar at the entrance is due to the continually rolling over and over of a certain quantity of sand until its advance is checked by an equilibrium being established between the action of the ebb tide and the average effect of storm action. Without sedimentary deposit in its waters or a great mass of sand to be removed by scour, the only

(Testimony of Frederick C. Turner)

shoaling to be found at the entrance or in the harbor would be that caused by erosion at one point and deposition of eroded material at another; but years of observation have shown this action to be almost insignificant. In fact, at no harbor on our coasts are the conditions known to be so favorable toward the maintenance of a channel depth once obtained. With the sand movement so small and the protection of the entrance about to be increased by construction of the outer breakwater, which will still more effectually cut off the

San Pedro, Cal. 9

piling-up effect of the southerly storms and prevalent westerly swells, it would be difficult to find a situation more favorable to further improvement by means of dredging. By this method the improvement of this harbor may be carried far beyond the limits or possibilities of natural scour, and it would be converted into a purely tidal harbor, accessible by deep-sea vessels at all stages of the tide. With the many wonderful improvements made in excavating machinery of late years, this method has been resorted to more and more in deepening channels and removing bars. It has been eminently successful in many of our most important harbors, and yet at no one of them are the physical conditions as favorable to dredging as at Wilmington. Not only is the sand drift at this harbor almost insignificant, but it can also be safely said that dredging in the inner harbor would rarely if ever suffer interruptions due to the weather. Under this method of improvement there can be no doubt that the inner harbor is capable of a future development that

would equal any demand upon it which the future can be expected to make, and that would make of it one of the first-class ports of the world.

The least width at the entrance between the jetties is about 650 feet. From the entrance to the wharfs this width is capable of being almost doubled. At the lower end of the wharfs the least width of channel is found, namely, 500 feet, which gradually increases to the upper end of the wharfs, where it is 800 feet. At Smiths Island it is 1,500 feet across between harbor lines; at the lower end of Mormon Island the distance across from the Southern Pacific trestle to Terminal Island is 2,300 feet, and this width gradually increases to the head of the lagoon near Wilmington, where it is more than two-thirds of a mile. The deepening of this portion of the upper basin to 30 feet of water at low tide would satisfy the demands of commerce for some generations to come. Ultimately it may be necessary to also deepen and improve that portion of the basin west of the Southern Pacific trestle, but this must evidently be in the far distant future with which this report is not concerned.

The distance from Deadmans Island to the head of the lagoon is about 3½ miles. The area of that portion of the inner harbor from the entrance to Wilmington and east of the Southern Pacific trestle is about 700 acres; improved by dredging it is capable of furnishing about 7 miles of water front. With respect to width of channel at entrance, length of water front, and area this portion of the inner harbor will compare favorably with some of the leading ports of the world. The Chicago River, which in the annual number of arrivals and departures

(Testimony of Frederick C. Turner.)

of vessels leads the United States, is at no point more than 300 feet wide; the commerce of Baltimore is carried on in a dredged channel 18 miles long, having a width throughout a considerable portion of its length of but 250 feet. The Liverpool docks, handling annually a tonnage of from fifteen to twenty millions, cover a lesser area than this inner harbor; and the San Francisco water front has a length from the south county boundary around to the Black Point Military Reservation of about 9 miles. Many other important harbors could be mentioned in this connection, all of which would tend to prove that the inner harbor thus developed could accommodate a vast and unlimited commerce. It is a land-locked harbor, its waters are calm, and vessels within could lie perfectly still in all weathers without even the reduced sea which would exist within the protected area of the



proposed outer harbor. Finally, the plan of improvement by dredging would result in immediate benefit to commerce; and the advantages to be reaped therefrom would become greater and greater as the dredging was continued from year to year and as the growing interests of commerce continued to demand further improvements.

Now, as to the amount of improvement that would be justified by the commerce involved. It has been generally contended by the authors of the item in the last river and harbor act, which called for this report, and by the business men of this city, that the item was inserted with the design and intention of calling forth a project from the local engineer for an improvement of the whole inner

harbor to a depth of 30 feet at mean low water. The project of Lieut. Col. W. H. H. Benyaurd, of June 8, 1894, called for 18 feet of water at the entrance and 20 feet along the wharf fronts, and the river and harbor act of June 3, 1896, directed the Secretary of War, "at his discretion," to cause surveys and estimates to be made for further improvements at this location, so as to secure a depth of 25 feet at mean low water in the channel and interior harbor. The last Board on the location of a deep-water harbor in this vicinity, known as the "Walker Board," in their report[1] submitted March 1, 1897, refer repeatedly to the advantages to be derived from the further improvement of this inner harbor, and show conclusively that its future development formed a most important factor in the considerations which influenced them to decide upon San Pedro as the location for the deep-sea harbor. From their report I quote the following pertinent paragraphs:

The inner harbor now accommodates vessels drawing 18 feet, there being 14 feet on the bar at low water. The entrance is between stone jetties 700 feet apart. The harbor as now utilized extends 9,000 feet from the mouth of the jetties to the lower end of Wilmington Lagoon, a tidal flat basin having a high-water area of about 2 square miles and a tidal prism corresponding perhaps to an average depth of 3 feet at high water. About 4,000 feet of this channel, from the Southern Pacific passenger station north, is now occupied by wharves, which are practically continuous on the west side of the channel, these wharves forming a longitudinal quay alongside of which vessels are berthed. For 3,000 feet south of the Southern

Pacific wharf there are mud flats on each side of the channel in which basins could easily be excavated, there being room for a basin more than 2,000 feet long and at least 500 feet wide on the west side and for one of about half these dimensions on the east side of a channel 600 feet wide. The east basin could be enlarged indefinitely by removing the present jetty farther east.

To ascertain the possible developments of this inner harbor a series of borings was made, extending from the upper end of the wharves into the outer bay and beyond the 5-fathom line, these borings being generally carried to a depth of at least 6 fathoms below mean low water. A full report of these borings is given in Appendix D. These borings show that for a distance of 1,200 feet inland from the end of the jetties the bottom above the 5-fathom line is a hard, black, sandy clay, impregnated with petroleum, in or on which a few bowlders are found; it is a material through which a pipe was forced slowly by the use of a water jet, and a material which can be worked without serious difficulty by a hydraulic cutter dredge. Outside of the jetties this same material is found, but it sinks rapidly and drops below the 5-fathom line about a thousand feet from the end of the west jetty, the deposit above it being generally sand with a little mixture of gravel. Beyond the limits of the hard material the bottom of the harbor, wherever examined, was practically pure sand, easily handled by a suction dredge. To open a 30-foot channel 400 feet wide from the upper end of the present wharves to the 5-fathom line in San Pedro Bay would require the removal of about 2,000,000 cubic yards of material, all of a class which

could be readily dredged, and to open a channel 24 feet deep of the same width would take about half of this amount.

While the tidal basin of the Wilmington Lagoon is not large enough to make a tidal current which would scour away the bar, it is large enough to prevent the silt-

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[1]Printed in Senate Doc. No. 18, Fifty-fifth Congress, first session.



ing up of a channel once opened. To accomplish satisfactory results it would probably be expedient to extend the present jetties to the point where 24 feet of water is first reached, this being 1,200 feet for the west jetty and 1,500 feet for the east jetty, requiring from 100,000 to 150,000 cubic yards of rock, which, if it were handled by the same fleet that handles the rock for the breakwater, could be done for the same price. The total cost of opening a 24-foot channel for the distance named would be less than the cost of the Port Los Angeles pier, and the cost of increasing the depth to 30 feet would not be very much greater. The present channel between the jetties points almost exactly southeast, magnetic, and this would be the natural direction in which to extend the jetties. There is now a bar directly opposite the mouth of the jetties, to avoid which vessels passing in and out have to make a short turn. The existence, or at least the continuance, of this bar appears to be due largely to the action of the southerly seas, which would be shut off by a breakwater, so that it is believed that there would be little difficulty in maintaining a straight entrance, and even in

continuing a 5-fathom channel beyond the end of the jetties to the present 5-fathom line. The inner harbor would be purely a tidal harbor, with no tendency to silt up except from local carelessness. The sewage from any town that might grow up here should be discharged outside of the jetties. A proper system of bulkhead construction would keep out the wash from the adjacent land, and a restraining wall, similar to that at San Diego, constructed east of the Wilmington Lagoon would divert the deposit from the Los Angeles and San Gabriel rivers.

While the extension of the jetties and the deepening of the inner harbor may not be a necessary part of the immediate construction required for the deep-water harbor provided for by law, they certainly are accessories which would within a reasonable time and at a reasonable cost enable this harbor to meet every possible requirement of commerce in the most complete and satisfactory manner.

As stated in my preliminary examination report, above referred to, the coasting trade, consisting principally of the importation of lumber, forms the most important part of the present commerce of this harbor. Its maritime exports are at present insignificant, and the foreign imports have thus far been, with the exception of coal, of little consequence. Were the lumber trade alone to be considered, interior channel depths of 20 feet would satisfy all demands for the present and immediate future; the coasting vessels could freely enter and leave the harbor at any stage of the tide, and purely local commercial interests could be well taken care of with that depth of water.

(Testimony of Frederick C. Turner)

But the question of the future development of the inner harbor covers a much broader and more comprehensive scope than local interests would suggest. It is true that Los Angeles, which is the business center of the district for which this harbor serves as an instrumentality of commerce, is located in the midst of one of the richest and most fertile sections of the country. It has undeveloped mining resources; it is the central depot of two great transcontinental railroads and the main terminus of the southern coastwise railway lines. And it is confidently predicted that another transcontinental line from Salt Lake City, which it is said will be the shortest line between the Atlantic and the Pacific, will soon be built to this city, over a section of country in which are found vast deposits of iron and unlimited measures of coal. Rich oil fields are daily being opened up in every direction around this southern metropolis, and their future extension and development augurs well for a satisfactory solution of what has been the all-important question to this section in the past; namely, that of cheap fuel. The city has vast and unlimited commercial possibilities, yet the present demands of commerce do not appear to be such as would justify extensive improvements in the inner harbor at great expense to the General Government. However, it is the consideration of this problem, in connection with the building of the outer deep-sea harbor of commerce and refuge, and the relation of both harbors, constituting one port, to the future development of the rapidly increasing oriental trade, that makes the establishment of a first-class harbor on

this southern coast a manifest necessity. The Board of Engineers of 1892, in their report on the location of a deep-water harbor on this southern coast, commented as follows on this question:

By far the most important aspect of this subject, however, is its relation to the probable future development of the deep-sea commerce of the country. Heretofore the Asiatic trade has naturally gone to San Francisco, but it has been pointed out that the construction of the Canadian and Northern Pacific railroads has introduced two competitors for the overland transportation of the Asiatic commerce. Two through lines, the Southern Pacific and the Santa Fe systems, cross the continent from Los Angeles at much lower elevations than the northern lines, and also connect the Pacific with the Gulf of Mexico, and their operation is never obstructed by snow or ice. If a safe, accessible, and convenient harbor for deep-draft vessels existed on the southern coast, these would appear to be the most favorable lines for the transportation of Asiatic and Australian commerce.

Should the Nicaragua Canal be completed, the importance of the proposed harbor will become still greater. At the present time the most convenient course for sailing vessels coming around the Horn is to go out into the mid-Pacific and strike the trade winds to make the port of San Francisco. With the completion of the canal commerce will be principally transported by steam vessels of moderate draft, which will move north along the coast and seek the nearest favorable and convenient port from which their freight can reach its market.

A deep-water harbor on the southern coast would thus receive the Asiatic and Australian freights for shipment over the most favorable transcontinental lines, accommodate a large part of the commerce passing through the Nicaragua Canal which now goes around the Horn, and, finally, furnish a port of shipment and supply, not only for the productive territory in its immediate vicinity, but also for the great interior plateau reached by the southern railways beyond the mountain ranges. Considering, therefore, the probable needs of commerce in the near future, the Board is of the opinion that the proposed deep-water harbor is of high national importance and well worthy of construction by the General Government.

This necessity for a deep-water harbor has since been recognized by Congress, and an appropriation of $2,900,000 has been made for the building of an outer breakwater, which is now in process of construction. Its completion must introduce a new factor in the problem of the general prosperity of the country, the full value of which can only be determined by taking advantage of the new resources which it offers to commerce in the fullest and most comprehensive manner. When completed the outer breakwater will afford a protected area of about 1 square mile, and will furnish wharf frontage to the extent of about 1½ miles. The inner harbor, when fully improved, will have double that area, which will be much better protected, and it is capable of furnishing 6 or 8 times as much available water front. The inner harbor will be much easier of access by the railroads than will the outer harbor; the grades will be less and the distance

(Testimony of Frederick C. Turner)

shorter; the piers that will be necessary to reach deep water need not be so extensive, and the cost of maintaining them will be far less than in the outer harbor; and accommodations for the maintenance and repair of vessels can be erected in the inner harbor much more conveniently at hand. In fact, the inner harbor will be much more than an accessory to the outer harbor, and with both completed the latter will serve essentially as an anchorage ground and a harbor of refuge, and the former as a harbor of commerce for the direct and convenient connection of ship and rail. * * *

* * * In my opinion it appears desirable to now enter upon a general project for obtaining 24 feet of water at mean low water from the ocean to the head of the inner basin. To dredge a channel 400 feet wide from the ocean to the lower end of the wharfs; to dredge the interior channel between harbor lines as far as the head of the wharfs; and to dredge the inner basin from the upper end of the wharfs to



Wilmington, and from the Southern Pacific trestle to Terminal Island, would require the removal of approximately 20,000,000 cubic yards of material.

The extension of the jetties at the entrance to 24 feet of water would probably prove necessary with the deepening of the entrance channel to 24 feet. This would require about 190,000 tons of rock.

The single work of the east jetty is in a precarious condition. It was constructed over twenty-seven years ago, and has become so badly rotted in places that the sea is in

danger of breaking through into the inner harbor. To tear out this old timberwork and replace it with a rubble wall of about the same dimensions as that portion of the jetty just inside of Deadmans Island would require about 10,000 tons.

A restraining wall should be built at the head of the lagoon to divert the storm waters of the Los Angeles River. As located by the last deep-water-harbor Board, the dike would be about 6,360 feet long. Giving it a height of 10 feet above mean low water, a width on top of 20 feet, and side slopes of 2 to 3, the wall would require about 38,000 yards of material. It would be necessary to purchase a strip of land of about 30 acres upon which to build this dike.

The estimated cost of dredging can not be based on the cost of such work heretofore done at this harbor by contract. In all such cases the contracts were for small amounts of material, including generally the tough clay or hardpan found near the entrance, and requiring that the excavated material be carried some distance to sea. What would now be considered old-fashioned and unsuitable dredges had to be brought to the harbor from distant points, and when breakdowns occurred to the machinery it was found impossible to make the necessary repairs in local shops. With the powerful hydraulic cutter dredges of today, with a large face to work upon in a well-protected area, and with over 99½ per cent of the whole amount of material composed of soft mud, fine sand, and shells, all the dredging should be done, even by contract, at an average of from 12 to 15 cents per cubic yard. But by far the better plan would be for the Government to

purchase or construct a suitable dredge. Such a plant would result in a great reduction of the cost of the dredging; would offer many advantages to the United States in the way of conducting the work, and would leave it available to assist in the maintenance of dredged channels and possibly for service at other harbors in the district. I find also that if the filling could be obtained by pumping through pipe outlets onto the neighboring flats without expense to the owners, most or all of them would build the necessary bulkheads to retain it. Under these conditions the 20,000,000 cubic yards of dredging should be done at an average cost of 10 cents per cubic yard.

The 200,000 tons of rubblestone would probably cost about 75 cents per ton in place, the 38,000 cubic yards of embankment about 20 cents per cubic yard, and the 30 acres of land possibly the large price of $50 per acre. These prices should cover engineering expenses and contingencies, and they would make the total estimated cost of the project as follows:

| | |
|---|---|
| 20,000,000 cubic yards of excavation, at 10 cents per cubic yard | $2,000,000 |
| 200,000 tons of rubblestone, at 75 cents per ton | 150,000 |
| 38,000 cubic yards of embankment, at 20 cents per cubic yard | 7,600 |
| 30 acres of land, at $50 per acre | 1,500 |
| Total | 2,159,100 |

14 San Pedro, Cal.

With the necessary funds appropriated there would be no particular difficulties in the way of doing the stone-work and building the embankment in any one working season. The dredging work, however, would be of much greater magnitude and would require considerably more time. With a modern, first-class dredging plant, over 2,000,000 cubic yards of material could be excavated annually. Even this would require the very liberal appropriations of $200,000 per year, and at that rate the work could be finished in ten years, before the end of which period the completion of the outer breakwater would demonstrate what need or necessity there might be for further deepening and fuller development of the inner harbor.

However, a work of such great extent as this, and which in all likelihood would require such a long period of time for its completion, should be so arranged and conducted that the public would be enabled to reap direct and immediate benefits from the results obtained each month and each year. With this important object in view, it would, in my opinion, be extremely desirable to begin operations under the general project above outlined by work upon a portion of it, as follows: To dredge a channel 20 feet deep and 400 feet wide from the ocean to the lower end of the wharfs; to dredge between harbor lines from the lower to the upper end of the wharfs to a depth of 24 feet; to dredge a turning basin 1,600 feet in diameter between the upper end of the wharfs and the lower end of Mormon Island to a depth of 24 feet; to replace with stone the decayed timber in the

single work of the east jetty, and to build the restraining dike at the head of the lagoon in order to divert deposit from the Los Angeles River. The tidal rise at the bar and entrance, at the lowest tides, is not less than 4 feet, so that were 20 feet at mean low water secured there and the inner channel to Mormon Island deepened to 24 feet, a channel 24 feet deep from the ocean to the turning basin would result.

An extension of the training walls at the entrance may prove eventually a necessity, but it is believed to be worth while to attempt this portion of the work and leave the preservation of the entrance depth to the action of the currents and to periodic dredging.

The estimated cost of the above work would be as follows:

| | |
|---|---|
| Dredging (from the ocean to and including the turning basin) 4,410,000 cubic yards, at 10 cents per cubic yard | $441,000 |
| Repairs to single work, 10,000 tons of stone, at 75 cents per ton | 7,500 |
| Construction of embankment and purchase of necessary land for same | 9,100 |
| Total | 457,600 |

The cost of construction of the dredging plant could be safely estimated to not exceed $92,400, and it would take about three years' time to build it and complete the above work. Regarding it, therefore, as a part of the general project, Congress should be urged, if the project

be adopted, to appropriate $550,000 for the first three years' work. This would include the whole cost of the dredging outfit in that portion of the work, but it would result in a corresponding decrease in the cost of the remaining dredging and would leave the estimated cost of the whole project as given above, namely, $2,159,100.

The commercial statistics of this harbor are given in the preliminary examination report above referred to. From it I quote briefly, as follows:

Commercial statistics for the year 1871, when the improvement began, show that the amount of freight entered and cleared for that year was 50,059 tons. In 1888 this



amount was increased to 452,637 tons, the harbor in that year doing its maximum business for any one year, the total amount of revenue collected for the year being $167,693.97. There has been a very perceptible falling off during the last few years, due, no doubt, to the fact that wharfs have been built at Port Los Angeles (Santa Monica), Redondo, and Newport, and each of these places obtains its own fair share of the coasting trade. However, the increase of commerce in Wilmington Harbor has been fully commensurate with the amount of money spent in improvements there.

From my last annual report I quote more in detail, as follows:

(Testimony of Frederick C. Turner)

Commercial statistics for the year the improvement began (1871).

| | Incoming. | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 60 | 160 |
| Sailing | 65 | 65 |
| Total | 225 | 225 |
| Freight ..... tons | 25,313 | 9,575 |
| Lumber ..... feet | 10,938,336 | ..... |

Statistics of commerce for the year ending December 31, 1898.

[Furnished by the collector of customs at Los Angeles, Cal.]

| | Foreign commerce (outer harbor). | | Domestic commerce. | |
|---|---|---|---|---|
| | Incoming. | Outgoing. | Incoming. | Outgoing. |
| Vessels: | | | | |
| Steam | 11 | 8 | 212 | 217 |
| Sailing | 3 | 2 | 204 | 213 |
| Total | 14 | 10 | 416 | 432 |
| Tonnage | 6,932 | 6,880 | 125,929 | 130,729 |
| Draft, greatest ... feet | 24 | ..... | 19.3 | ..... |
| Merchandise, general ..... tons | 5 | 44 | 5,568 | 4,848 |
| Lumber ..... feet | ..... | ..... | 106,555,447 | ..... |

| | Tons. |
|---|---|
| Total amount of freight entered and cleared in 1871 | 50,059 |
| Total amount of freight entered and cleared in 1898 | 223,575 |
| Increase | 173,516 |

(Testimony of Frederick C. Turner)

I inclose herewith a copy of the report of this survey submitted to me by Assistant Engineer F. C. Turner, who was in charge of that work.

Very respectfully, your obedient servant,

James J. Meyler,
Captain, Corps of Engineers.

Brig. Gen. John M. Wilson,
Chief of Engineers, U. S. A.

(Through the Division Engineer.)

[First indorsement.]

U. S. Engineer Office, Pacific Division,
San Francisco, Cal., January 16, 1900.

Respectfully forwarded to the Chief of Engineers

This and former investigations and experience at this harbor indicate that improvements to any extent which the demands of commerce will warrant may be made by dredging an interior basin and channel of approach, with the reasonable assurance that such improvement will not deteriorate to any great extent. Since, however, San Pedro



Bay has been determined upon as the location of a deep-water harbor for commerce and of refuge, and the work is now under contract, Wilmington Harbor has assumed a different position from what it formerly held, becoming merely an accessory of a larger and more important harbor for commerce in this locality.

The coasting trade, consisting principally of the importation of lumber, is the chief commerce of Wilming-

ton Harbor, and present facilities are thought to be adequate.

It is recommended that the further improvement of Wilmington Harbor be deferred for the present, and only such expenditures be made upon it as will insure it against injury, by replacing with stone the worm-eaten and badly decayed timber work of the east jetty.

S. M. Mansfield,
Colonel, Corps of Engineers,
Division Engineer.

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## REPORT OF MR. F. C. TURNER, ASSISTANT ENGINEER.

Los Angeles, Cal., January 3, 1900.

Captain: I transmit herewith a map of San Pedro Harbor.

The outer harbor and channel as far in as the red beacon are from a survey made last spring by the Coast Survey. The hydrography north of the red beacon and the shore line north of the head of the wharfs are from the survey of October and November, 1899. About half the soundings were plotted, and only the characteristic soundings taken from these and shown on this map.

Fifty-four borings were taken. The location and character of material shown by them are noted on the map. A line of borings south of the head of the wharfs was run by the Board of Engineers for locating a deep-water harbor in 1897, which resulted in their reporting material easily handled by modern dredges.

(Testimony of Frederick C. Turner)

Comparing the map of 1883 with this of 1899, a deterioration is seen in the main channel to Wilmington from 7 to 5½ feet at low tide. The area covered at low water in the basin northeast of Mormon Island is also reduced to a narrow channel, some of the former branchings being silted up. There is also considerable change in the grass patches, sloughs, and marshes east of Wilmington. The channel seems somewhat deeper, but the marsh lands have encroached on the open water.

In the estimates on the projects of improvement, side slopes of one vertical to ten horizontal have been assumed in the portion of the channel outside of the jetty ends, and one vertical to five horizontal inside, except in the clay near Deadmans Island, where they are assumed as one to one.

The minimum project upon which estimate had been made—but not checked, for lack of time—is for a channel 20 feet deep below the wharfs and 24 feet along their front and above. The width is taken as 400 feet below the lower end of the wharfs and as wide as the distance between the pierhead lines above to the turning basin at the upper end. This basin it is proposed to have end in a semi-circle of 1,600 feet diameter, or only about 200 feet less than the width of the channel at San Diego, in front of the city.

This project gives an available average high-water channel of 25 feet, and an immediately available water frontage of about 3 miles. The width at the entrance would be 400 feet, and along the wharfs from 500 to 1,500 feet.

Deepening the whole of the inner harbor to 30 feet at low tide, and providing an entrance channel the same

depth and 500 feet wide, would require the dredging of about 44,000,000 cubic yards, which, at an average price of a little over 10 cents, and with an addition of 10 per cent for expenses of supervision and for contingencies, would cost about $5,034,000. This would appear to be what will ultimately be required, say within the next century, and should be provided for and kept in view in all work of future improvement.

The best development of this upper basin, in my opinion, would be as a dock, and not as an anchorage area. Even with the railway embankment and Mormon Island removed large vessels could not turn around under their own headway, and an anchorage is provided for outside by the outer breakwater now being built. Hence, the aim should be to gain water frontage rather than area, though allowing, of



course, commodious channels. From the point of view above mentioned, it is desirable to leave Mormon Island and join it to the high land at Wilmington as a long tongue or point, taking off only a portion of the southern end so as to give a 200-yard channel past it. The same reasoning would apply to the railway embankment. At least two drawbridges should be provided, but the rest of the embankment might be widened to 300 feet. For the remainder of the shore line, probably the usual piers and slips would afford the greatest accommodation. All this could be done with minimum channel widths of 500 feet, and three basins with least diameters of from 1,500 to 1,800 feet. The resulting port would be comparable to those handling the largest tonnage in the world. Its area

would be over 1,000 acres, or more than the Liverpool docks, and even more conveniently disposed; its entrance channel could be made 500 feet wide, or more than the deep channels to Glasgow, New Orleans, and Baltimore; and its water frontage 11¾ miles, or more than that under the jurisdiction of the State board of harbor commissioners at San Francisco. The scheme outlined contemplates its use as supplementary to the outer harbor. As compared to the latter alone it would have (1) larger area of deep water, (2) much more water frontage, (3) better land approaches, (4) entire freedom from ocean swell or danger from Santa Ana winds, (5) while not requiring the construction and maintenance against the teredo of long expensive wharfs, and (6) would be more quickly available. Furthermore, it could be enlarged gradually as commerce demanded, and could be used by means of the existing wharfs and railroads.

The difficulties in the way of this ulterior project are not physical but legal, due to private ownership of the tide lands down to low-water mark, and to the existence of the railroad embankment. It would appear desirable to take up the matter of the rearrangement and extension of harbor lines at an early date, so as to prevent the growing up of vested rights. The original project for improving Wilmington Harbor contemplated a channel maintained by tidal scour. This new project, on the contrary, calls for depths and widths beyond the limits of natural scour with the available tidal prism. In this latter case no necessity exists for restricting the current, and it is suggested that the harbor lines be moved so as to give a wider channel where it can be done without injury to private parties.

(Testimony of Frederick C. Turner)

The best arrangement for a basin at the lower end of Mormon Island requires a change in the line at Rattlesnake Island, which can be made without affecting any existing wharf.

The flood waters of the Los Angeles River should be turned away from the harbor. As located by the deepwater harbor Board the dike would be about 6,360 feet long. Estimating on a height of 10 feet above low water, a top width of 20 feet, and side slopes of 2 vertical to 3 horizontal, this dike would take about 38,000 cubic yards.

A strip of land 200 feet wide for this length would contain less than 30 acres. Assuming the high prices of 20 cents per cubic yard for the embankment and $1,000 for 30 acres of land, the cost would be $8,600. A better location some miles up the river is said to exist, but was not examined.

The physical difficultjes in the way of the improvement are slight. The sand movement is slow, thus rendering periodic dredging of the bar inconsiderable, and aside from some isolated bowlders and cobblestone patches in the vicinity of Deadmans Island, the material to be dredged is fairly easy to handle. In occasional rainy seasons several thousands of yards of detritus are brought into the channel through the canyon in the town of San Pedro, but for long periods of time the average annual amount is not likely to prove enough to justify permanent works to prevent it. As to extending the jetties, it is respectfully suggested that a trial of dredging alone should be made first, as periodic redredging may prove cheaper than the interest on the cost of the stone walls; and the outer breakwater, when built, will render the maintenance of

the entrance channel still easier. There is no important point on the open coast of the United States where the conditions are so favorable for cheaply maintaining a dredged channel as here at Wilmington or San Pedro Harbor, and yet, while no dredging has been done outside of the end of the present jetties, there are many instances of successful cuts elsewhere.

Very respectfully,

F. C. Turner,
Assistant Engineer.

Capt. J. J. Meyler,
Corps of Engineers, U. S. A.

H. Doc. 357—2

18 San Pedro, Cal.

Estimated cost of improving inner harbor of San Pedro, Cal.

| | Ocean to red beacon. | | | Above red beacon. | | |
|---|---|---|---|---|---|---|
| | Cubic yards. | Cost per cubic yard. | Total cost. | Cubic yards. | Cost per cubic yard. | Total cost. |
| Channel 400 feet wide and 20 feet deep to red beacon, full width of harbor lines, and 24 feet deep past wharfs, and circular basin at end 1,600 feet in diameter and 24 feet deep.... | 394,350 | $0.20 | $78,870 | 4,015,750 | $0.10 | $401,575 |

| | Total cubic yards. | Total cost. | Cost with 10 per cent added for contingencies. |
|---|---|---|---|
| Channel 400 feet wide and 20 feet deep to red beacon, full width of harbor lines, and 24 feet deep past wharfs, and circular basin at end 1,600 feet in diameter and 24 feet deep | 4,410,100 | $480,445 | $528,490 |

| | Ocean to red beacon. | | | Above red beacon. | | |
|---|---|---|---|---|---|---|
| | Cubic yards. | Cost per cubic yard. | Total cost. | Cubic yards. | Cost per cubic yard. | Total cost. |
| Channel 400 feet wide and 30 feet deep from ocean to red beacon, as wide as pierhead lines past wharfs, and 30 feet deep, and circular basin at end 1,600 feet in diameter and 30 feet deep | 1,762,100 | $0.20 | $352,420 | 5,763,350 | $0.10 | $576,335 |

| | Total cubic yards. | Total cost. | Cost with 10 per cent added for contingencies. |
|---|---|---|---|
| Channel 400 feet wide and 30 feet deep from ocean to red beacon, as wide as pierhead lines past wharfs, and 30 feet deep, and circular basin at end 1,600 feet in diameter and 30 feet deep | 7,525,450 | $928,755 | $1,021,630 |

| | Cost per cubic yard. | Total cubic yards. | Total cost. | Cost, with 10 per cent added for contingencies. |
|---|---|---|---|---|
| Excavation of whole inner basin above the wharfs to 30 feet, in addition to above (approximate) ..... | $0.10 | 36,475,000 | $3,647,500 | $4,012,250 |
| Excavating basin above wharfs and east of Southern Pacific Railroad embankment (approximate) ..... | .10 | 14,000,000 | 1,400,000 | 1,540,000 |

Wm. Tyler Page,
Clerk.

HOUSE OF REPRESENTATIVES.
Clerk's Office
Washington, D. C.

I, William Tyler Page, Clerk of the House of Representatives of the United States, do hereby certify that the attached is a true copy of the original House of Representatives Document No. 357 of the Fifty-sixth Congress, First Sessions, being entitled, "EXAMINATION AND SURVEY OF INNER HARBOR AT SAN PEDRO, CAL.—LETTER FROM THE SECRETARY OF WAR, TRANSMITTING WITH A LETTER FROM THE CHIEF OF ENGINEERS, REPORTS OF EXAMINATION AND SURVEY OF INNER HARBOR AT SAN PEDRO, CAL. January 30, 1900. —Referred to the Committee on Rivers and Harbors and

ordered to be printed," on file and of record in the Office of the Clerk of the House of Representatives; and I further certify that I am the legal keeper and legal custodian of said original document.

IN WITNESSS WHEREOF I have hereunto subscribed my name and caused the Seal of the House of Representatives of the United States to be affixed this Seventeenth day of October, 1930.

[Seal] Wm. Tyler Page

Clerk of the House of Representatives, U. S.

[For map attached to the foregoing report see page 9, Book of Exhibits.]

No. Q-12-J. City L A vs Borax Consolidated Plf Exhibit No. 6. Filed 11/9/1933 R. S. Zimmerman, Clerk. By Cross, Deputy Clerk.

That he heard the testimony of Mr. Hale in reference to the error in the establishing of certain lines.

"Q. Do you know how that error occurred, if it was an error?

A I didn't know it was an error at the time. If I had, I would have corrected it. I didn't know at the time there was an error. I can give you my theory as to how a discrepancy occurred.

Q That is all right, but I am not going to ask you about it."

This line shown on the map, Exhibit 4, as edge of grass, refers to the water side or lower side of the grass. There are some soundings that run across patches of grass, cer-

tain soundings that would be close to the edge of the grass.

"Q Showing you Plaintiff's Exhibit 4, I ask you if you can by an examination of that, refresh your memory and tell us and the court the elevation of the grass line as determined by you from your survey of 1899.

MR. ASHBURN: To which we object upon the ground that it calls upon the witness to give an opinion and conclusion which the court can just as well draw for himself, because the map shown that the figures to which counsel refers are soundings and are not measures of the elevations of the land itself.

A 3-1/2 feet,—3.8 and 3.7 feet above mean lower low water.

The witness said he did not know the difference in elevation between the line of edge of grass and the line of mean high tide, but that the line of mean high tide would be higher than the edge of grass.

## CROSS-EXAMINATION

of Frederick C. Turner

That his survey and investigation of the inner harbor was made with respect to proposed harbor improvements; that he was not interested in determining property boundary lines; that the mean lower low water to which the witness referred in direct examination is the datum plane used by the Coast Survey and by the Army Engineers in their hydrographic surveys; that it had been established at the time of his own survey; that it was the average elevation of lower low water; that the tide gauge on which the readings were based was established and read

near the mouth of the harbor a number of years before 1899; that he did not remember whether the bench mark was commonly known as bench mark 10.07; that he did remember that he had leveled from the same bench mark from which said established datum plane had been established and in use for many years prior to his survey; that there was at that time but the one mean lower low water established and that was the one that the Coast and Geodetic Survey and the United States Engineers Department were using at that time, and that his primary object in his survey was for the purpose of making soundings throughout the whole of the inner harbor; that the figures on Exhibit 4 which cross each other in various lines and run down into the channel represent depths of water reduced to mean lower low water; that is, it gives the depth with relation to the datum plane just mentioned; and the figures have the same significance in the channel to the west of Mormon Island; the figures opposite the portion of Mormon Island which has the word "Island" written upon it are likewise soundings of the depth of water and the only relation they have to the height of land at those points is the fact that the soundings happen to be in the water opposite that particular part of the line; that in his survey of Mormon Island he did not determine high water mark as being any exact or definite elevation above any specific datum plane; that although he used exact technical heights for soundings and referred to the said datum plane of mean lower low water, when he came to his land survey he did not attempt to follow that system; that so far as high water mark was concerned he just went on the

ground with his rodman, picked a spot which in his judgment seemed to indicate high water mark on the ground, did not pick the dividing line between two types of grasses; did take into consideration what was indicated by the different types of grasses and the drift and the general conditions there; that he did not tie into the dividing line between grasses; did take into consideration the line of drift on the shore, making allowance for wave action.

"Q What other physical features as you now recall it, Mr. Turner, did you, thirty-four years ago, take into consideration in picking this spot that you call the high water mark?

A Well, I can't say anything further than I have.

Q The truth is that you cannot today visualize that spot, isn't it?

A No, I could not make a drawing of it."

That he was careful in selecting a protected little beach so he would not get confused with wave action; that it was not any physical spot on the ground that he took, such as line of drift or line of grass but was a combination of various things.

"Q BY MR. ASHBURN: I will ask you if you did not testify upon the taking of your deposition in this case, Volume 1, page 70, lines 3 to 17, as follows: 'Q All right, describe that spot as it then looked. A. Well, it was on the beach and was about the edge where some little grass drift had lodged. Q As I understand you, it was lower than the little vertical cliff that we have talked about? A Yes, I think it was. Q And was there any mark in the beach itself, any definite line to which you

(Testimony of Frederick C. Turner)

referred? A Yes, there was a line of drift along there. Q But you took a line lower than the line of drift, did you not? A Oh, yes, but very small, the movement was very little. Q So that the best explanation you can give of the physical mark there was that it was close to the line of drift, is that right? A Yes.'

Did you so testify?

A I presume so.

Q Isn't that correct?

A They are both correct; there is no inconsistency.

Q Is that testimony correct as given?

A Yes sir.

Q I will ask you if you did not also in the same deposition, at page 69, line 9, testify as follows: 'Q You said that was a well defined mark? A Yes. Q Just describe it, please. A Well, it is a shore that was rather steep and the grass was—had a clear definition as against the intermingling of the gr s. I can't be very precise about it, it was not intende o be very precise.'

Did you so testify?

A I think so.

Q Was that correct?

A I think so.

Q Did you also testify as follows, at page 51, line 20: 'By Mr. Nourse: Have you any present recollection on what part of Mormon Island it was that you picked the point which you were going to have determined as representing the high water mark' and did you not answer: 'Only generally. It was near where I started in, but I cannot picture to my own mind any definite point.'

Did you so testify?

(Testimony of Frederick C. Turner)

A Yes.

Q Was that true?

A I think so.

Q Is it true today?

A I think so.

Q Now, having thus picked a point, such as you have described, I want to ask this question: Did you not also, under Captain Watson's questioning, on that same deposition, beginning at page 70, line 25, and ending at page 71, line 23, conclude that portion of the testimony as follows:

'Q Yes, Mr. Turner. A Well, I think I ought to modify that by saying my present recollection is that—as I stated before, that I took into account in forming my judgment the general conditions, including drift and character of the beach, as well as the grass, but I cannot say that I have any clear-cut, definite vision in my mind of just where I placed the rod when I began.'

Did you so testify?

A I would say so today.

Q That is correct today?

A Yes sir.

Q BY MR. ASHBURN: I am referring to page 94, of Volume 1, of your deposition. I think in fairness I should begin back at line 6. 'Q Calling your attention to the page headed "Tuesday, October 31, 1899, Traverse on Mormon Island, at Station 1," the first line that you ran in that traverse was your fifth sight, was it not? A. No, that is not on the traverse.'

Q 'The first line you ran? A The first observation of the high water mark, yes. Q Of the high water

mark? A Yes Q And it was at that point that you attempted to fix and to show to your rodman the point that you had picked out in your judgment as ordinary high water mark? A No, it was so recorded here, but I think that was over on the other island. Q You mean that you had transferred the level from another island to Mormon Island? A No, I think that is a mistake in recording, it is an error, I am not sure.'

'Did you so testify?

A Probably.

Q You understand, do you not, that that testimony relates to the very first shot or observation that was taken from Station 1 when you began to run your traverse?

A If you say so, yes.

Q Well, you so understood it when I read it, didn't you?

A Yes.

Q In other words, so far as you can now say it is true that there was an error in recording that very first observation?

A So it says.

Q And the testimony, I suppose, was true when given, was it?

A I endeavored to be truthful.

Q Well, do you mean it was to the best of your knowledge?

A Yes sir.

THE COURT: Counsel, give me your understanding of just what he has said in reference to that error, and what was the error.

(Testimony of Frederick C. Turner)

MR. ASHBURN: My understanding is that the notes say that the first observation of the taking of the elevation here of this 1.5—that is, an observation from here up to here, and that the witness' testimony is that the notes are incorrect in that respect.

THE COURT: In what regard?

MR. ASHBURN: He did not say.

MR. BUTTS: He said he was not sure whether they were correct.

MR. ASHBURN: I am not claiming—that can be—I claim that they are so unreliable you could not tell—are you ready for me to pass to the next matter or not?

THE COURT: No, I want the witness' reaction. What do you understand the error consists of, Mr. Turner? Can you explain it?

THE WITNESS: My memory of it was I did some observing before I started on the high water mark of Mormon Island, and that in the recording I would say something for the recorder to do, and I probably called out 'High water mark', and in his continuous work either he or I omitted to stop that notation. I don't know whether that is—

Q BY MR. ASHBURN: That is just speculation, isn't it?

A Yes.

THE COURT: Wait a minute.

A I said that was my theory of the mistake."

That the witnes stayed at the instrument and the recorder stood beside him; that upon his deposition at page 108, line 8, he testified as follows:

(Testimony of Frederick C. Turner)

"'Q And the determination of the high water mark and your answer was that there was a mistake in recording the notes from Station 1. A. Well, that referred to that lower line down there, I am satisfied that was a mistake, that is my belief.' Then there was a motion by counsel, and Captain Watson asked what the answer was, and so forth. 'Q. Mr. Watson: What line do you refer to, Mr. Turner? A The line along the slough.' I am leaving out the objections. 'Mr. Watson Q Will you designate that by number? A Well, beginning from 1-12 and running along up to 1-29'."

That this is the same line to which Mr. Hale referred in his testimony; that in his deposition the witness had testified that the notes with regard to the said observations were erroneous.

"Q Now, I will ask you whether or not you did not likewise testify at Volume 2, page 35, line 15 and following, with respect to some of these other observations, with particular reference to 4-38, 4-39, 4-40 and 4-47. Now 4-38 is up here (indicating) 4-39, 4-40 and 4-47 is there.

A Yes.

Q That is on the northern end of the island?

A Yes.

Q Having directed your attention to the locus in quo, I want to ask you if you did not testify as *follow*, page 35, line 15: 'Q Let me ask you about 4-38, 4-39 and 4-40, the same would hold true there, would it, that the ground toward the interior would be higher than at those points? A Probably. Q Is that your recollection that it was? A Oh, I think so. Q And directing your

attention to 4-47 where it is stated, "Edge of grass, west bank of small slough, 60 feet wide (bank opposite this nearly straight)"'—

A This says 25 feet wide.

Q Well, 4-47?

A Oh, yes, yes.

Q '—"(bank opposite this nearly straight)", do you recall the bank to which reference was made in your notes in that language? A No, I can't remember. Q You don't know whether there was a bank there or not? A No. Q You don't know whether the notes in that respect were correct or not, do you? A Well, I depend upon the notes for a statement of fact. Q My question is this, Mr. Turner, you yourself don't know of your own knowledge at this time whether the notes which relate to bank opposite this nearly straight at point 4-47 were or were not correct, do you? A I don't remember.'

Did you so testify?

A Yes, sir.

Q And is that true?

A That is as I would answer it; I would answer that same way today."

That in running the edge of grass the witness did not take levels to place the rodman and that he told him to go where the grass was; that the only place he guided the rodman was on the high water mark.

"Q BY MR. ASHBURN: Mr. Turner, do you now concede that there were errors in the recording of those notes?

A Certainly.

(Testimony of Frederick C. Turner)

Q And you are not able to tell us definitely and specifically which notes were correct and which ones were incorrect, are you?

A No.

Q To give you the connection: 'Now, then, did you find in your notes anything relating to any of these points between 4-55 and 4-10, referring to the line now between those points which is underneath the words "Small slough"? A I don't clearly recall it Q You notice, do you not, that on this exhibit the small slough is carried through between the points that I mention from one side of the line to the other?' You see what I mean up there?

A Yes sir.

Q '—is carried through between the points that I mention, from one part of the line to the other? A Oh, I do remember now, it was—in the notes opposite—where this (indicating)—say, for instance, 4-42 was observed. There would be a note in the—a statement in the record the slough was so many feet wide, and that is how these words were put in, you notice they are opposite each one of these (indicating).' And Captain Watson pointed out the notes 4-42 to 4-47, and you say 'Yes'. And then there was a colloquy between counsel, and then you say: 'Yes, that is why these were put in, they were not direct observations, but they were put in with reference to the distance across the slough from the points shown there with numbers.' 'Now, I call your attention again to Exhibit F—' that is the same exhibit in your deposition as this—'and to the fact that at the northerly end of the Island or north center opposite—strike out "opposite"—

(Testimony of Frederick C. Turner)

in the vicinity to which your attention has just been called on the other exhibit, there is shown here what appears to be a small slough which runs in a general southwesterly direction and then turns westerly and then turns northerly.' Now, that reference, I get from the language, is this, that reference was to this exhibit where the slough comes down here, you see.

A Yes.

Q And then turns to the west, and then turns to the north again.

A Yes sir.

Q That is Exhibit 4 I just referred to.

A Yes.

Q Whereas, in this Hale map, the slough comes down here and then instead of turning to the north, as on your map, the slough is brought by Mr. Hale clear through to the other side.

A I see.

Q And your map does not bring it through.

A No, it stops there. It left it in the air, it did not complete it.

Q It certainly does not bring it through to the other side?

A No.

Q And your notes show that 4-10 and 4-11, there was a crossing at the mouth of the slough?

A Yes, sir.

Q And you can't tell whether the mouth of the slough you crossed was a part of the same slough as this one you turned to the north here, you can't tell that from your notes?

(Testimony of Frederick C. Turner)

A No.

Q So that in that respect Mr. Hale made a different interpretation of the slough from what you put on your map?

A I did not determine it, I left it in the air, and he carried it through.

Q You certainly did end it headed up to the north here?

A Yes, sir.

Q And where you turned it to the north, he turned it around and headed it to the west?

A He concluded that was where the end of it was.

Q Now, do you undertake to say at this time that your depiction of that slough on your map, which is Exhibit 4, was correct, or that Mr. Hale's is the correct one, or do you attempt to say which?

A I make no such attempt. I did not think it was an important matter.

Q Can you tell us whether or not—you checked this over with Mr. Hale, didn't you?

A Yes, sir.

Q Can you tell us whether or not this point 4-54, which you see appears to be part of his heavy blue line, which he told us represented high water mark, can you tell us whether or not that is correctly located on the map, I mean to say, whether it is correctly included in his delineation of high water as distinguished from the edge of grass?

A Well, I have no theory of that particular point. I will say, I went over the map with Mr. Hale and checked it as to the computing of the notes. As I told you this

(Testimony of Frederick C. Turner)

morning, there was some point, there was some discrepancy, but I can't remember where it was.

* * *

Q Now, the 4-54 in the notes, as shown, was marked edge of grass, and yet it is incorporated in this heavy blue line which Mr. Hale says is his interpretation of high water mark; can you tell us which is correct, the edge of grass, or the high water mark, with respect to that point?

A No. It might be both. It is barely possible—

Q I am asking if you can tell us.

A It is not inconsistent that the edge of grass, that the grass turned and went in, and ended there, and then came out again, but there is nothing in the notes to show it.

Q BY MR. ASHBURN: By that you mean, do you not, that it is entirely possible that edge of grass and high water were coincident at that point, is that what you meant?

A. It is possible that such a statement may be true in any particular case. I would not say it is possible or it is impossible. I don't know. There are points where edge of grass and high water mark are coincident in elevation.

THE COURT: Q In this case, of course, according to the map, they are not coincident?

A No.

Q BY THE COURT: Now, do I understand from your testimony that you are not sure whether this 4-54 is correctly located?

(Testimony of Frederick C. Turner)

A Well, I think it is correctly located, but the question was to whether it was correctly delineated as high water or edge of grass.

* * *

THE COURT: Q As far as I can see there is an arrow equally going over to the other point 4-56, isn't there?

A Yes, sir.

MR. ASHBURN: Q They are both marked edge of grass in the notes and one of them is shown as edge of grass on the map, and the other is shown as high water mark on the map?

A Yes.

Q BY THE COURT: Other than what was done at the time, you don't know any more about it than myself or counsel, is that about it?

A That is about the size of it."

The notes designate the sloughs about 25 feet in width; that was not measured by the grasses but was the water width, measured by the eye and not thought to be important enough to actually measure it. The height of the tide at the time of that measurement is not known. That the lower limit of growth of long straight grass was not uniform as to elevation and the observations that the witness took with respect to location of edge of grass were not taken with respect to any level at all; that although an assumed level was carried around the island for high water mark when edge of grass was considered the witness did not assume or establish any level or height for it; that the witness had to rely upon the observations

(Testimony of Frederick C. Turner)

of the rodman as to the places to be indicated as edge of grass; that he could not say how long he had known that rodman, who was one of the employees of the Government; that the soundings appearing in the channel opposite Mormon Island or around Mormon Island were not taken on the same days when the witness ran the high water line and edge of grass; that an entirely different method was used.

"Q And the fact that there appear upon this Exhibit 4 certain soundings which appear to be more or less coincident with what you have apparently designated as line of grass, merely means that when you depicted the topographic survey and then the hydrographic, or vice versa, that there happened to be that coincidence in those soundings?

A Yes sir.

Q Such soundings were made for the purpose of determining the depth of water?

A Yes sir.

Q And that is all the significance there is in that apparent coincidence of those soundings and that edge of grass?

A Yes sir."

That he does not know the names of the grasses which he mentioned in his testimony; that there was not a sharp line of demarcation between the two types and that if one were going to fix that line as the line of high water mark there would be a relatively narrow belt within which there would be room for exercise of judgment; that the witness does not know of any existing field notes

of his soundings but had been told by Mr. Easton that the same had been destroyed.

"Q Now, I want to be clear about this one thing: In running your high water mark you did not make any attempt to run a 5.8 contour, did you?

A No.

Q Nor a 5.1 contour?

A No, sir.

Q Nor a 4.7, nor any other particular elevation or contour?

A No sir."

Part of the survey was done on the 31st of October and part on the 1st of November and it was the difference between the surveys of these two dates that established the two parallel high water marks that are shown on the Hale map, Exhibit 5.

"Q BY MR. ASHBURN: The method of determining whether or not you carried your line of levels around the island, in other words, preserved the same level, would be to see whether or not your levels closed when you got around?

A Yes, sir.

Q Did you close your levels on that day?

A I don't recall. You asked me that question before, and I have tried to recall. In a survey made where notes were taken, one would naturally do that. But this is—this was done without any thought of the special significance of that.

Q Didn't you testify in your deposition that you didn't close your levels?

A I may have.

(Testimony of Frederick C. Turner)

Q Didn't you testify as follows:

'Q—You didn't close your levels that day, did you?

A—No, I don't think so.

Q—Nor on the next day?

A—No.' Isn't that true?

A Possibly.

Q It was true when you gave it?

A Yes sir."

The ground on the portion northwesterly of what is shown as the small slough on the Hale map gradually rises toward the west from the line represented by 4-36, 4-37, 4-38, etc.; it is a very flat hog back, you might call it; if did gradually rise. It is not true that the highest portion of the land on the Island was within the area just pointed out.

"Q BY MR. ASHBURN: Mr. Turner, in the deposition if I recall it, this map which is Exhibit 4 here, was Exhibit F there, and I want to ask you if you did not testify in Volume 2, page 29, line 9, as follows:

'And within those lines and within the area designated by the word "island" on this Exhibit F there was some high ground that was considerably higher than this line of grass, wasn't there?

A—It was higher than the line of grass, yes, sir.'

You so testified?

A Yes.

Q 'Q—In fact, some of the highest land on the whole Island was within the area, wasn't it, at that time?

A—Yes.'

A Well, I meant this island (indicating on diagram).

Q Did you so testify?

(Testimony of Frederick C. Turner)

A. I may have done so. But I am sure that my intent was not to say this land was higher than this land.

MR. ASHBURN: I move to strike the witness' answer as not responsive and as argumentative.

THE COURT: Motion denied.

MR. ASHBURN: Exception.

Q BY MR. ASHBURN: Did you or did you not give that testimony?

THE COURT: Just a minute, Mr. Ashburn. This court is not going to spend time on something that everybody knows is true. That is a transcript of the testimony, isn't it?

MR. ASHBURN: Yes, sir.

THE COURT: Very well. Now, the witness has answered and said that he did, but meant so and so. Now, obviously that testimony was given; nobody is going to deny it in this case.

MR. ASHBURN: Nobody has admitted it yet.

THE COURT: What?

MR. ASHBURN: Nobody has admitted it yet.

THE COURT: I think they have. I think this witness—you gave that testimony?

A Yes, I gave that testimony. I think the words 'the island' there is in error.

THE COURT: You have explained it, I think, satisfactorily.

Q BY MR. ASHBURN: And the area about which you were then being asked was the area shown on this Hale map northwesterly of what is marked 'small slough', wasn't it?

(Testimony of Frederick C. Turner)

A This was the island referred to, not this (indicating)."

All the ground within the periphery of the line outlining the portion northwest of the small slough was higher than the line itself, which indicates edge of grass.

The witness does not think that he wrote the notes relating to observations taken from Station 5; they are not in his handwriting, he thinks they must have been Mr. Smith's. Mr. Smith is still living and the witness is unable to vouch for the accuracy of what he wrote on that page nor is he sure whether he put on Exhibit 4 what appears to be line of grass around the word "island". He is not positive but he thinks he did. The depth of the channel at the entrance at the time of the Turner survey was a little more than sixteen feet.

REDIRECT EXAMINATION

of Frederick C. Turner.

That he knows that the higher high waters run considerably above and beyond the ordinary high water mark and above the mean high water mark; that he had no personal knowledge of the physical situation prior to 1899 and did not pretend to tell the court what, if any, relation the physical conditions observed in that year had to the physical conditions existing in 1880 or 1881; that he had observed that portion of the Island lying north of the slough and had seen it when it was covered with water; that the map, Plaintiff's Exhibit No. 5, correctly depicts and shows the high water mark and edge of grass as surveyed by him in 1899, that is to say, it is correct

(Testimony of Frederick C. Turner)

as far as the location of the various points are concerned; this discrepancy or conflict in the notes, of course, is open to question. The various points, for instance, 1-29 and 5-4, they are correctly plotted so far as the angle and distance from the station are concerned. But when you see the point marked high water mark, and edge of grass, then when you see another point marked edge of grass and high water mark, which cannot be reconciled to the other position—

"THE COURT: In other words, there are some apparent contradictions in it?

A Yes sir.

* * *

BY MR. BUTTS: The conflict is in the notes, isn't it, Mr. Turner, in the field notes.

A Yes. One point will be marked high water mark and another point marked high water mark and they cannot be reconciled.

Q That is down along the line that we talked about this afternoon beginning with the numbers here 1-12 up to 1-29?

A Yes sir.

* * *

MR. ASHBURN: The outstanding example of irreconcilable conflict in the notes to which you referred is the heavy high water line which runs from 6-5 south, and the lighter high water line which runs from 1-29 south, or 5-7 south?

A I presume so. Of course, without a very careful study of the notes to refresh my memory, I cannot, of my own knowledge, testify as to the particular points.

(Testimony of David E. Hughes)

THE COURT: Referring to your last answer, the heavy line is, of course, the high water line, and the light line is a high water line from that point south also.

A It was so marked in the notes.

Q BY MR. ASHBURN: In preparing your map, Exhibit 4 in this case, you showed the high water line, according to this line which goes south 5-7 down to 1-12, rather than the one that goes from 6-5 down to 6-29, didn't you?

A I think so.

Q. You followed then the outer lighter line in your map, which is Exhibit 4?

A Yes, I did.

Q Showing that as the high water mark.

MR. BUTTS: And the line from 6-5 to 6-29 is not shown on your map, Exhibit 4, is that correct?

A It is not shown."

DAVID E. HUGHES

was recalled and testified as follows:

That he had been an employee of the United States Government as an engineer for a period of thirty-nine and a half years, and that he was stationed at San Pedro in 1900; that he remained in San Pedro at intervals from 1900 to 1913, and from 1913 to 1917 and from 1919 to 1922 his address was away from San Pedro; that from 1900 to 1908 he was surveying the San Pedro breakwater and the inner and outer harbors of what is now Los Angeles Harbor.

(Testimony of Langdon C. Easton)

LANGDON C. EASTON,

being first duly sworn, testified as follows:

That he was a government employee, employed in the office of the United States District Engineer in Los Angeles, California; that he had been employed by the United States Government for approximately thirty-five years and that he was the administrative assistant and had charge of the office work and the office records and documents. The witness was shown a document entitled, "Inner Harbor, Wilmington, California, January, 1881, scale 1 inch equals 300 feet, soundings reduced to same plane of M. L. W., as soundings in outer harbor, W. P. Smith, Assistant," and on the reverse side were the figures "1127". The witness testified that it is a map that has been on file in the said Engineer's office for many years; that he did not know where it came from; that it was a record in the office of the United States Engineer and that he did not know whether it had been used by the officials of the United States Government in connection with their work in the Engineering Department since the year 1899, but that he knew it was a record in the office of the District Engineer and that it had been in the office to his personal knowledge since 1899; that it contained the file number; that he had told all he knew about said map of his own personal knowledge. The map was offered in evidence and the following objections were made thereto:

"MR. ASHBURN: We object to the reception of the map in evidence, upon the ground, first, that oral evidence

is not competent to impeach or refute the Norway survey; and, secondly, that there is no proper foundation laid for the map in that the purpose of it or the authority for it is not shown. There are no field notes produced; there is no evidence of the correctness of the map in any respect, and the best that could be said for it is it is an ancient document, which doctrine merely establishes the genuineness of the document and not the correctness of it."

The objection was overruled and the map was received in evidence and marked Plaintiff's Exhibit No. 7. [For copy of Plaintiff's Exhibit No. 7 (Map) see page 10 Book of Exhibits.] The witness was shown another document or map entitled, "Wilmington Harbor, California, surveyed under the direction of Lieutenant Colonel G. H. Mendell, U. S. Corps of Engineers, December, 1883, scale 200 feet to 1 inch, by A. Boeschke, Assistant Engineer." The witness testified that he recognized the document as being a record in the office of the United States Engineer; that he knew of his own knowledge that it had been a record in said office since the year 1899. The same was offered in evidence and the following objections thereto were made:

"MR. ASHBURN: To this map we make all of the same objections which we urged to the Smith map, plus the further objection that this map, according to the testimony produced on the deposition of Mr. Hughes, is, to an unknown extent, a compilation, having had copied into it some of the data from an earlier map, which has been destroyed, and so with that statement I emphasize the objection as to the foundation."

(Testimony of Langdon C. Easton)

The objection was overruled and the same was received in evidence and marked Plaintiff's Exhibit No. 8. [For copy of Plaintiff's Exhibit No. 8 (Map) see page 11 Book of Exhibits.] Thereupon the witness was shown a book marked "Record" with some readings and figures in the book which the witness identified as being a record in the office of the United States Engineer, and being used by the draftsmen in the office; that the book which was exhibited to the witness was a compilation of calculations as made by David E. Hughes, and the book was offered in evidence, to which objection was made upon the ground that no proper foundation had been laid and that the same was incompetent, irrelevant and immaterial; the objection was overruled and the document was received in evidence and marked Plaintiff's Exhibit No. 9.

[EXHIBIT NO. 9.]

1

This book contains the more important data determined from surveys made by me of San Pedro Harbor Cal., in 1904; also calculations made at later dates.

It omits nothing which I consider of sufficient accuracy and importance for future use.

It supersedes all my old note-books and sheets of calculations, which, because they contain approximate matter and unadjusted data intermixed with the rest, would likely mislead another man.

The letters and numbers used as headings are those which appear on a map of proposed harbor lines, dated

(Testimony of Langdon C. Easton)

July 24, 1905 and signed by Col. Heuer, Lt. Col. Handbury and Capt. McKinstry.

The letters and numbers coming in natural order are not indexed. Miscellaneous matter is indexed below.

D. E. Hughes, Asst. Engr.
August 30 1906.

The numbers following the name of station are coordinates in feet referred to U. S. C. & G. S. Sta. marked "R" on map as origin.

All bearings and azimuths are with respect to the true meridian through "R".

Index.


| | |
|---|---|
| Mormon Island | 65, 66 & 67 |
| S. P. Wharf, | 68 & 69 & 85 |
| Terminal (Salt Lake) Whf. | 70 & 86 |
| East jetty below double work, | 71 |
| West jetty | 72 |
| Breakwater | 73 |
| S. P. R. R. trestles | 75 |
| Streets in San Pedro | 76 |
| Curve from "18" to "19" | 77 & 87 |
| Curve from "100" to "101" | 79 & 88 |
| Curve of "single work" | 81 |
| Outer Harbor, west side | 83 |
| "300" to "304" | 89-90 |
| Salt Lake R. R. Co's stakes | 93 |
| Bench marks | 95 |
| Light-house on breakwater | 74 |
| Turning Basin | 97 |


"O" 9877.3 N. 769.9 E.
(Hughes 1904.)

(Testimony of Langdon C. Easton)

1½" galvanized pipe 4' long set 4' in the ground and covered with rocks outside of present (1904) high water line, at meander corner #1 of public land survey of Mormon Island made in 1880, as restored by D. E. Hughes, in 1904.

The corner was restored not by course and distance from the main land, but by bearing and distance from corner foundation post of "Leggett house". House long since gone but with assistance of Mr. Leggett and other old timers the site was found by digging. There was good testimony also of position of cor. #1 (="O") with respect to Leggett's wharf, the pile stumps of which are still to be seen.

S 26° W 13.2' old pile stump.

S 84° 57' 15" E 2469.5' "aa" (="Rattlesnake I.2")

N 65° 10' 07" W "I" (="Stand-pipe.")
"P." 11410.4 1303.2 E.

(Hughes 1904)

Nail in center of center pile of a solitary row of three piles 5 ft. apart projecting about 3½ feet above ground near the north end of Mormon Island.

N 19° 16' 52" E "q" (="Tank" in Wilmington)

S 47° 44' 29" E. "aa" (="Rattlesnake I.2.")

S 33° 12' 27" W "V", (="Solitary)

N 79° 48' 03" W 6394.5' "I" (=stand-pipe)

N 57° 27' E 49.5 ft. Old 2"x2" stake marked "x", thought to be Mr. Healy's #10 of his survey of 1887 of

(Testimony of Langdon C. Easton)

Mormon I. Coordinates of this 2″x2″ stake are 11437.0 N 1344.9 E. Hughes' #10 would be 11441.8 N. 1340.6 E.

"107" 8782.1 N 479.5 E

Unmarked point on proposed pierhead line from which I bears S 39° 31′ 30″ E 850′

"107" to "120" is S 39° 31′ 30″ E 91.2′

"170" (="O") to "183" inclusive are corners of Public Land Survey of 1880 of Mormon Island as patented. [See "O"]

| | | | | |
|---|---|---|---|---|
| # 1= | "170" | 9877.3 N | 769.9 E |
| | 171 | 10403.0 N | 853.4 E |
| | 172 | 10907.4 N | 862.4 E |
| | 173 | 11263.4 N | 793.3 E |
| | 174 | 11793.4 N | 603.0 E |
| | 175 | 11951.6 N | 600.3 E |
| | 176 | 11983.3 N | 694.1 E |
| | 177 | 11755.6 N | 1058.1 E |
| | 178 | 11573.0 N | 1111.3 E |
| | 179 | 11441.8 N | 1340.6 E |
| | 180 | 11249.8 N | 1419.1 E |
| | 181 | 10736.2 N | 1120.1 E |
| | 182 | 10080.6 N | 1200.8 E |
| #14= | "183" | 9817.4 N | 898.8 E. |

"170" is 1674′ easterly of line D"E" measured at right angles to D.E. from a point 2113.1′ from "D"

For notes etc see page 66.

(Testimony of Langdon C. Easton)

Mormon Island Survey of 1880.

| No. | Bearing | Chains | Distance Feet | N. | S | E | W |
|---|---|---|---|---|---|---|---|
| 1 | N 9° E | 8.07 | 532.62 | 526.1 | | 83.3 | |
| 2 | N 1° E | 7.65 | 504.9 | 504.8 | | 8.8 | |
| 3 | N11° W | 5.50 | 363.0 | 356.3 | | | 69.3 |
| 4 | N19¼°W | 8.54 | 563.64 | 530.5 | | | 190.5 |
| 5 | N 1° W | 2.40 | 158.4 | 158.4 | | | 2.8 |
| 6 | N71¼°E | 1.50 | 99.0 | 31.8 | | 93.7 | |
| 7 | S58° E | 6.50 | 429.0 | | 227.3 | 363.8 | |
| 8 | S16¼° E | 2.88 | 190.08 | | 182.5 | 53.2 | |
| 9 | S60¼° E | 4.00 | 264.0 | | 131.0 | 229.2 | |
| 10 | S22¼° E | 3.14 | 207.24 | | 191.8 | 78.5 | |
| 11 | S30¼° W | 9.00 | 594.0 | | 513.1 | | 299.2 |
| 12 | S 7° E | 10.00 | 660.0 | | 655.1 | 80.4 | |
| 13 | S49° W | 6.07 | 400.62 | | 262.8 | | 302.4 |
| 14 | N65° W | 2.15 | 141.9 | 60.0 | | | 128.6 |
| | | | 5108.40 | 2167.9 | 2163.6 | 990.9 | 992.8 |
| | | | | 2163.6 | | | 990.9 |

Error in lat.= 4.3 Error in dep.= 1.9

Error of closure 4.7 ft. = 1 in 1087.

Compass survey and lines equally easy to measure, hence, according to court decision,

5108.40:4.3::any course: error in lat. of that course.

5108.40:1.9::any course: error in dep. of that course.

4.3÷5108.4=.000842 } multipliers
1.9÷5108.4=.000372 } to get corrections.

See page 67]

(Testimony of Langdon C. Easton)

Mormon I. survey of 1880 Balanced.

| No. | Bearing | Distance | N. | S. | E. | W. |
|---|---|---|---|---|---|---|
| 1 | N 9° 01′ 30″E | 532.3 | 525.7 | | 83.5 | |
| 2 | N 1° 01′ 20″E | 504.5 | 504.4 | | 9.0 | |
| 3 | N10° 59′ 00″W | 362.6 | 356.0 | | | 69.1 |
| 4 | N19° 45′ 00″W | 563.1 | 530.0 | | | 190.3 |
| 5 | N 0° 58′ 40″W | 158.2 | 158.2 | | | 2.7 |
| 6 | N71° 19′ 40″E | 99.0 | 31.7 | | 93.8 | |
| 7 | S 57° 58′ 20″E | 429.4 | | 227.7 | 364.0 | |
| 8 | S 16° 14′ 40″E | 190.2 | | 182.6 | 53.2 | |
| 9 | S 60° 13′ 20″E | 264.2 | | 131.2 | 229.3 | |
| 10 | S 22° 14′ 10″E | 207.4 | | 192.0 | 78.5 | |
| 11 | S 30° 12′ 20″W | 594.3 | | 513.6 | | 299.0 |
| 12 | S 7° 01′ 00″E | 660.5 | | 655.6 | 80.7 | |
| 13 | S 48° 56′ 50″W | 400.7 | | 263.2 | | 302.2 |
| 14 | N65° 02′ 30″W | 142.0 | 59.9 | | | 128.7 |
| | | 5108.4 | 2165.9 | 2165.9 | 992.0 | 992.0 |

No. Q-12-J Eq. City of Los Angeles vs. Borax Consol. Plf Exhibit No. 9 Filed 11/10/1933 R. S. Zimmerman, Clerk By Cross, Deputy Clerk.

## CROSS-EXAMINATION

of Langdon C. Easton

That he knew nothing about the correctness or incorrectness of the calculations or other entries therein, and that he had never studied the book, Plaintiff's Exhibit No. 9; that he knew that it was compiled by Mr. Hughes; that he was not sufficiently familiar with the same to know whether the entries ran consecutively or whether

(Testimony of Langdon C. Easton)

some of the later entries precede some of the earlier ones so far as dates are concerned; that the draftsmen in the office had used it, but he could not say how recently or in what connection.

"MR. ASHBURN: That is all the questions I have of the witness. I call your Honor's attention to the fact that an examination of the book will reveal that it is in part a copy of other documents, and it does not run consecutively or chronologically, and it does not bear the earmarks of having been made in the regular course of business or pursuant to any official duty or action in the premises; and on those grounds and on the grounds that we urged in our objection, we move to strike the book.

THE COURT: Mr. Ashburn, do you think that militates against the admission of the book as a record, whether it is correct or not? I mean, as an official record.

MR. ASHBURN: I think it goes to the very foundation of the book, because the only thing that has been produced is the fact that it has been in the Engineer's office, and the witness says it is a record, and he says somebody at some time used it in some connection, but he cannot say what. If this is a record within the public document rule, then, anything that is found in any public office, no matter by whom used or for what purpose, becomes evidenciary, and the authorities are to the contrary.

THE COURT: That, naturally, would go to the weight of the evidence, its effect as evidence. The fact that it was irregularly made, nevertheless, so far as

its admissibility goes, my present view of it, it is admissible.

MR. ASHBURN: I would like to present some—

THE COURT: I want to make this suggestion also: That in the ordinary cases an engineer goes out and makes a survey and he testifies to its correctness. But the custom here, in fact, the necessities of the situation may require a little different procedure. In other words, work of this kind must, of necessity, be the work of several people. There is that feature that I conceive might create a difference. Now, you might bear that in mind with respect to any of these exhibits. The Court will be very willing to listen to motions with respect to that, but I have that in mind, because it came up yesterday, that from the necessities of the situation that work must be the work of several people.

MR. ASHBURN: That is one of the grounds, your Honor, on which the document becomes incompetent, by reason of the fact that there is a combination of the views of different people. I have the authorities on that, and I would like to present them."

Thereupon the motion was denied.

## DAVID E. HUGHES

was recalled and testified as follows:

That between the years 1900 and 1908 he examined Mormon Island and that he examined it seeking evidences of whether or not there was any filling of the inner harbor in recent years by debris deposited on the Island as the result of floods which came down the river from a point

(Testimony of David E. Hughes)

above the Island; this was done because there was a project adopted by Congress and about to be fulfilled, to build a dam across from Terminal Island to Wilmington Island, to bar future entry of such floods, and there was a question whether the rate of filling was enough to justify the building of the dam; that he examined the Island on occasions between the years just mentioned for the purpose of determining the limit of federal jurisdiction in the matter of possible future dredging and establishment of federal harbor lines; that harbor lines are blanket permits from the War Department authorizing the building of solid fills out to one harbor line known as the bulkhead line and open wharf structures to the other harbor line known as the pier head line; that he was working for a board of engineers, which board was created for the purpose of recommending the establishment of harbor lines at San Pedro; that he was working under the direction of the board and that he had made examinations and inspections and surveys at the harbor in connection with the establishment and recommending of harbor lines.

"Q And what did your survey and examination of Mormon Island consist of in respect to the matter of the establishing of those harbor lines?

MR. ASHBURN: To which we object as incompetent, irrelevant and immaterial, being an attempt to impeach, by parol, the conclusive, Norway survey, being too remote in point of time, namely, 22 years after the Norway survey, and there being no showing, direct or indirect, that the conditions which the witness saw or

(Testimony of David E. Hughes)

may testify he saw in 1902 and subsequently were in anywise the same as those which were found by Mr. Norway at the time of his survey.

THE COURT: Overruled."

That he examined the Island for the first time for that purpose in 1904.

"Q. What did your examination consist of and just tell the court in your own langauge what you did.

MR. ASHBURN: To which we object on all the grounds stated in the last objection, and the further specific grounds that there is no foundation laid in that there is no showing of what this datum claimed was with respect to which he worked and what if any bench marks he used, and therefore, there is no basis from which the witness' testimony in this regard can be judged or with reference to which it can be cross-examined, and no showing that his mean lower low was a correct one or in any way determined in any accepted manner.

MR. BUTTS: We will show that to your Honor.

THE COURT: Overruled."

His examination consisted of walking over the land when the tide was at heights known at the time to him; that when he examined the Island in 1904 it was in a state of nature except that a shipyard and a wharf were on the south end of it and the Government had built an east jetty at San Pedro, which may have affected the tides.

"What I was concerned with at the time was the meander lines of the patent, and whether so much of that area as those harbor lines would cut off was what I believed to be above or below ordinary high water mark."

(Testimony of David E. Hughes)

That he assisted Mr. Hale in preparing the plot sheet, Plaintiff's Exhibit No. 5; that he examined that portion of the Island which lies westerly of a line crossing the patented area running parallel to the Southern Pacific Railroad tracks, a distance of 1273.7 feet northeasterly therefrom.

"Q And what did you find within that area there with respect to whether or not it was above or below mean high tide?

MR. ASHBURN To which we object on all of the substantial grounds previously stated with respect to this kind of testimony and upon the further ground that no foundation has been laid in that it does not appear what is the witness' conception of mean high tide, nor the datum plane about which he is about to testify, nor the correctness or incorrectness of that.

A I found that it was below what I understood mean high tide to be."

That there was a distinction between ordinary high water mark and mean high tide and the distinction was that ordinary high water mark according to his understanding is the limit reached by the ordinary one of many high waters, each of which is high in fact, and that mean high tide is, according to his conception, a technical thing, namely, the limit reached of the average one of all high tides, be the high tides high or not; that there are many high tides which are but little, if any, above half-tide level; that they are technically high waters, because just before and after that stage, the water is a little lower; the he examined the Island when the tides were at various heights, which heights were known to

him at that time but which heights he now remembers approximately, and that upon his examination of the Island on the southwest edge of the area examined and adjoining the channel leading to Wilmington a small relatively narrow patch of ground covered with glasswort and the elevation was about four and a half feet above mean lower low water or the datum zero which had been in use by the Engineering Department and Coast Survey Department since 1872, and a short distance from the bank of the slough the elevation of the land was about four and a quarter feet above mean lower low water, and the major portion of the tract examined was an elevation between four and a quarter feet and three feet above zero or lower low water and covered with wild grass.

"Q BY THE COURT: You said a certain portion of it, estimating it, you found below mean high tide?

A As I understand mean high tide to be.

Q Yes. Now, you referred again to another portion where the glassworts were situated, I believe. Do I understand that was all below mean high tide?

A Yes, sir, the first tract, the height was an elevation of 4-1/2 feet above mean lower low water, and that 4-1/2 feet was below my conception of ordinary high tide. And then the other tracts examined were lower than that."

That he examined other portions of the Island in December, 1906; that he examined that portion of the Island lying north of the slough in 1906 and that the Island in a state of nature consisted of four parts, upon the highest part of which the shipyard was situated, and which was bounded on the south by what we called a

tidal isle which is a lower island; Mormon Island was either two or three pieces depending upon what shall be adjudicated as the high water mark; that he examined the Island when he knew the tide to be about five feet above mean lower low water, and that when the tide was five feet above the datum plane of mean lower low water the Island was severed in two large parts and one of the larger parts was severed by a very shallow swale when the water was at a height of 5.1 feet above the datum plane of mean lower low water, and that the slough which severed the Island was located on Plaintiff's Exhibit No. 5, between the points marked 4-10 on the west and 4-50 on the north, and that he had navigated it with a skiff when the tide was above half tide.

"Q BY MR. BUTTS: Was there any other place on the island that was severed by the water when the tide was at an elevation of 5 feet or more?

A Yes.

Q All right, where was it?

A That I found by walking through the glasswort at that stage of the tide, the line approximately between the stations marked 3-6, and the slough along the easterly side of the island."

That that portion of the island lying north of the slough would be entirely covered with water when the tide was at an elevation of five feet, and that he had observed that portion of the Island covered with water when the tide was at that elevation as he waded all over at such a time; that he had waded over the westerly part in 1904 and then over the rest of it in 1906.

(Testimony of David E. Hughes)

"Q BY MR. BUTTS: Well, when was the dredging done along the southeasterly and the westerly side of Mormon Island, if you know?

A Yes.

THE COURT: What issue is that directed to?

MR. BUTTS: The Island was filled in 1909, and our title goes to the tide line whether it is filled or unfilled. It is our contention, if your Honor please, that is the time when the boundary line became fixed, when this reclamation work was done in 1909, and this man knows where the mean high tide line was at that time.

THE COURT: You mean in 1909 that nature determined the limits of your claim?

MR. BUTTS: No, your Honor, I mean this: Land such as this that is bordered by navigable waters, the line is subject to shifting either by alluvium or dereliction or some other cause, and the boundary line extends to the water so long as it is uninfluenced by the hand of industry of man. That is our contention. And we are prepared to show where that line reached at the time this reclamation work was done, exactly where it reached on the ground in 1909 when this filling was done.

MR. ASHBURN: We concede that if they are entitled to go behind the Norway survey that the matter of dredging does become a material issue.

MR. BUTTS: That is right.

MR. ASHBURN: Not on his theory, though.

THE COURT: No, naturally. Is not the condition that determines the question, from your standpoint, the condition at the time of the Norway survey?

(Testimony of David E. Hughes)

MR. BUTTS: We expect to show a little later on, if your Honor please, that the Norway survey was absolutely incorrect. Instead of it being at ordinary high water mark, it was down to mean low water, and no part or portion of that survey ever reached—

THE COURT: That scarcely answers the question. Isn't it the time that is decisive of the question here?

MR. BUTTS: No, your Honor, for this reason: The decisions which I pointed out to your Honor—I do not think there is any dispute in the law regarding the decisions that state that the meander lines are not the boundary lines; the water constitutes the boundary line. Now, we do not say it did shift here, but it does shift and change; the line is shifting and moving; it is where that water reaches on the ground. In other words, it might be one place today and ten years from now it might be 2,000 feet away, because by natural conditions uninfluenced by the hand of man, wherever that water reaches is the boundary line. Now, it does not become fixed, if your Honor please, until such time as the industry of man comes in and does something there that does establish it.

THE COURT: The line of high water does not become fixed until man takes a hand in it?

MR. BUTTS: It does not become fixed on the ground, your Honor. It might be one place now and a year from now it might be somewhere else, maybe 2,000 feet out or 2,000 feet inward.

THE COURT: Well, this title in the state vested on the 9th of September, 1850, did it not?

MR. BUTTS: Yes, your Honor.

(Testimony of David E. Hughes)

THE COURT: To all tidelands?

MR. BUTTS: Yes, sir.

THE COURT: Now, is it your contention that that height have been increased or lessened as the tide took a notion to deposit alluvium up there?

MR. BUTTS: That is right, if it was uninfluenced by the hand of man.

THE COURT: If it was uninfluenced by the hand of man. Then comes along the preemptor here who locates the land. Is he affected by what takes place afterwards?

MR. BUTTS: Yes, just the same as we are, your Honor, because the water is the boundary.

MR. ASHBURN: The complaint does not raise any such issue. It is a direct attack on the 1880 survey.

* * *

MR. ASHBURN: I would like to ask counsel a question to clarify this a little. Do you contend that there was a change between 1880 and the time either of the Norway survey in 1899 or the time Mr. Hughes went over the ground at the periods he mentioned?

MR. BUTTS: No, only imperceptible amounts; not any material change.

MR. ASHBURN: That is the way I construe his pleading; not that he makes the contention that there was a change in the line, but that he contends that the line in 1880 was not where Norway said it was.

MR. BUTTS: That is right.

MR. ASHBURN: Now, it being clear that there isn't any contention of there having been a shifting of the line during the lapse of years, it becomes apparent that the testimony in 1899, 1902 and 1906 cannot, except by

the remotest speculation, throw any light upon what were the conditions that at the time that Norway made his survey, and that even if it be conceded, which I do not, that it does throw light, still it is that same old direct attack upon—

THE COURT: I understand. Naturally, that element exists in all of this evidence.

MR. BUTTS: Yes, that is right.

THE COURT: I appreciate that. It seems to me, however, if you say no material change has been made since 1880, that there would be no end—you could show what the condition was in 1920, 1925, 1931, 1932 and 1933.

MR. BUTTS: We are going to show that the tide reached on the land—where that limit was on the land at the time the island was filled.

MR. ASHBURN: I do not concede that there was no change, but I asked him his theory, and he says there was no change.

MR. BUTTS: No material change, I said. There is, naturally, some little imperceptible change.

THE COURT: Yes. We are concerned, therefore, as I understand your case, with the condition of the island at the time of the patent or, at least, the Norway survey.

MR. BUTTS: We are concerned with its condition at that time and prior to that time, and we are also concerned with the condition of the island as it existed at the time man came in and changed it from its natural state.

THE COURT: Why bring that up? If there has been no material change since 1880?

(Testimony of David E. Hughes)

MR. BUTTS: Of course, we would not want to say that there has not been a material change; the tides of one year might have reached a further limit than others. But if—it would not make any difference what the conditions were in 1880 if, in 1909, when the dredging was commenced, the tides reached a greater height, because there might have been a recession, or there might have been an alluvium.

THE COURT: As I understand you, you definitely agreed that there was no material change after the Norway survey.

MR. ASHBURN: I did not agree to that.

THE COURT: I am not referring to you. I referred to counsel for the plaintiff. Is that correct?

MR. BUTTS: That is substantially correct, that is our theory.

THE COURT: Very well, then, I fail to see why, then, anything that was done to change it has anything to do with that, and that is the only thing in this case. That is, from the present situation of the case, that is the determining factor in it, and the only determining factor in it, the condition at the time of the Norway survey.

MR. BUTTS: I apparently have not made myself clear on the point I was trying to make. If, in 1909, before the dredging took place, we can show exactly the point on that island over which the tide ebbed and flowed, if they came in and filled that island, it would not change the character of that island as tideland, and that line on that point would be the boundary line. That is the point I am trying to make. That, I think, is estab-

lished by the authorities it is established in the Salt Lake case.

THE COURT: I am a little bit in confusion, really, as to your position. Here is the island and as it existed, we will say, in 1880; that, as I expressed the view, is the determining date. The changes were made in 1909?

MR. BUTTS: Yes.

THE COURT: What possible influence can that have, or to what extent that can be a factor in determining what the condition was at the time of the Norway survey in 1880?

MR. BUTTS: We want to show, before that fill, the limits reached by the tide.

THE COURT: I have allowed you to do that, on the theory that it would tend to throw light on the condition in 1880. I expressed the view at the time that it might tend to do that. But what was done afterwards, in the way of artificial changes, I fail to see are material. What do you think about that, Mr. Ashburn?

MR. ASHBURN: Well, from my standpoint, I see that it is material, but it is on an entirely different angle from which I approach it.

THE COURT: Why?

MR. ASHBURN: For two reasons: The act granting the tide lands to the City of Los Angeles was passed in 1911, and that act was so worded, and has been so construed, that in order for the City to prevail here the lands must have been then situated below the line of mean high tide, that is the language of the Act at the granting date in 1911. Now, if Mr. Butts proves what he has been talking about, he will prove himself out of

court, because he is going to prove that we were above that line at that time. But I am perfectly willing for that. Now, my angle of the thing is this, that even if it be conceded, only for the purpose of argument now, by way of alternative defense, if it be conceded that the land was below the line of ordinary high water mark—you notice I use a different wording, because I don't agree the mean high tide is the boundary—if it be conceded that the land was below the ordinary high water mark prior to 1909, then, as I stated in my opening argument, where there were improvements made in the channel, and as an incident, if there was reclamation or filling in of the island, it follows, as a matter of law, under the authorities that I will later present to your Honor, that that was a lawful reclamation, the benefit of which the then owner of the island and his successors in interest were entitled to. In that way, it has a bearing upon some of my other defenses as to the location of the line.

THE COURT: I do not understand that you contend that the testimony as to what the City did there in this matter or what anybody did has any relation to or is a part of your case, made necessary by the Act of 1911.

MR. BUTTS: No, your Honor, excepting that it establishes what we say—

THE COURT (Interrupting): Well, there can hardly be any exception to that. If you contend that it does not, all right. But if it does, then it would be different.

MR. BUTTS: Only in this manner, if your Honor please, as I attempted to state before, that the limits of the tide reached upon that island immediately prior to

(Testimony of David E. Hughes)

the time it was filled, establishes the land that belongs to the City of Los Angeles as a result of this grant from the State of California to it, regardless of where it reached in 1880. There might have been an imperceptible change year after year, and it may be that it reached further than it did in 1880, but if it was unchanged by the hand of man, that land would belong to the City of Los Angeles."

The witness was then shown a photograph which he stated correctly represented the objects shown on said photograph, being a photograph of the inner harbor of San Pedro which was taken from the uppermost staging of the high railroad track, just west of Canal Street, and north of the Southern Pacific Railroad in Wilmington, and also two enlargements of the same photograph, said photograph having been taken on the 5th day of November, 1908, which photograph was offered and received in evidence and marked Plaintiff's Exhibit No. 10, and the enlargements were marked Plaintiff's Exhibit No. 11; that the photographer happened to split the picture on Mormon Island without knowing it.

[For copies of Plaintiff's Exhibits Nos. 10 and 11 see pages 12 and 13 of Book of Exhibits.]

"Q BY MR. BUTTS: Now, Mr. Hughes, in this photograph can you show the court any of the different kinds of vegetation that grow upon Mormon Island from this photograph?

A I can.

Q Point that out to the court.

MR. ASHBURN: I object to that on the ground it would be wholly meaningless, if the witness did attempt,

from this photograph, to do anything of the kind. On the face of it, it is manifest.

THE COURT: Yes, I rather agree with counsel on that.

Q. BY MR. BUTTS: I want to ask you, Mr. Hughes, if this area that you show here as Mormon Island, if there is grass growing on that area.

A There is.

Q I will ask you if on November 5, 1908, at an elevation of 4.7 feet, the tide being at that elevation above the datum, if that northwesterly portion of that island was covered with water?

MR. ASHBURN: I object to that as not having a foundation laid, and the other grounds stated, and it is an attempt to impeach his own picture.

MR. BUTTS: We will show that it was, but you can't see it because of the vegetation that grows upon it.

THE COURT: The witness may answer.

A It was."

That he made a restoration of the survey of Norway in the early part of the month of March, 1904.

"A There was no trace of the original survey there, and I drew lines upon the ground which I considered would have been coincident with the Norway lines; and I got my data from United States Engineer's Office in Los Angeles, had a map from the Public Land Office, and field notes of the Norway Survey and was guided by those notes."

* * * *

"Q BY MR. BUTTS: I will ask you whether or not any of those lines that you restored reached the elevation

(Testimony of David E. Hughes)

of mean high tide, or were they all below mean high tide level?

MR. ASHBURN: To which we object as incompetent, irrelevant and immaterial and no proper foundation laid, too remote in point of time, and being an attempt to vary by parol the Norway survey itself.

THE COURT: Overruled.

A All the corners as restored by me were below ordinary high water mark. Those on the east and south and north being at about half tide level. That would be an elevation of about three feet above the plane of mean lower low water."

That the witness has made a study of tides as they existed on the Pacific Coast for a long period of time and that the study of the tides in the inner harbor of San Pedro or the inner harbor of Los Angeles was from the period of 1902 to the time of the trial of this action.

"Q I will ask you whether or not you know the elevation of mean high tide above the datum plane of mean lower low water in and around Morman Island.

MR. ASHBURN: As of what time?

Q BY MR. BUTTS: Well, as of the period of time that you have studied it, before it was influenced by the industry of man, if it all.

MR. ASHBURN: To which we object upon the ground it is incompetent, irrelevant and immaterial, too remote in point of time, not related to the period of the Norway survey, and the witness himself has heretofore indicated changes in the physical contours of the harbor have their effect upon the height of these tides.

* * *

(Testimony of David E. Hughes)

A I concluded in 1904 that in my opinion the ordinary— That the mean of all high tides was about 5.1 feet above mean lower low water. That was the mean of all technical high waters.

Q BY MR. BUTTS: Now, what was the elevation of all the means of the higher high tides above the datum plane of mean lower low water?

MR. ASHBURN: To which we object upon the ground it is incompetent, irrelevant and immaterial. The complaint in the case itself does not claim that the boundary line rises higher than this 5.1 point. He is asking him now about the mean of a higher imaginary plane.

A 5.8 feet above the same datum. This was in 1904, 1908, and so on.

Q BY MR. BUTTS: Have you ever made a study of the times in San Pedro Harbor to determine whether or not there was any change in their elevations, say, from 1872 up to 1908, or any other year previous to 1902?

A No. What I might have to say on that would be theoretical and speculative. I wouldn't know anything of my own knowledge on that. That I made a study of the Government records in the Engineer's office and those of the Coast and Geodetic Survey for the period from 1902 down to the present time for the purpose of determining whether there was a change in the elevations of the tides in San Pedro Harbor."

Referring to Exhibit 5, the Hale plotting of the Turner notes, he made a study to determine the elevation of the

(Testimony of David E. Hughes)

heavy blue line above the datum plane of mean lower low water.

"Q BY MR. BUTTS: What would you say was the elevation of that heavy blue line shown on that Hale plat sheet, Plaintiff's Exhibit 5, above the datum plane of mean lower low water?

MR. ASHBURN: I object to that, if your Honor please, on the ground that no proper foundation has been laid, as well as the fact that it is incompetent, irrelevant and immaterial. You recall that this is but a plotting of the notes of Turner, and the notes of Turner were not made with reference to any known elevation, and it could be nothing in the world except speculation on the part of Mr. Hughes as to what were these elevations which were unknown to Mr. Turner himself at the time he made the survey.

* * *

A I went through and examined the ground when the tide was at that height, and I noted that Mr. Turner's lines embraced a somewhat wider area than the area which was above that stage of the tide.

That Turner's lines were not marked on the ground and that he just judged the width. This was done by the witness some 26 years before Exhibit 5 was prepared; that he had the Turner map with him at the time; that the lines which would be established on the ground as high water mark by the Turner survey were covered with water when the tide was at an elevation of 5.1 feet above the datum plane. That means that Mr. Turner followed a line which was somewhat lower than 5.1 feet

in elevation, that is to say, that at the 5.1 elevation of tide there was a strip which was above water and that strip was in the same position as the strip bounded by the heavy blue lines but a little narrower; that his observation was about five and a half years after the making of the Turner survey; that in making his survey, he did not use the Government bench mark located near the Southern Pacific depot in Wilmington; that he was acquainted with that bench mark and its height but the ones he used were others, the height of which Mr. Turner had determined by precise leveling in the same general system of leveling. That the elevation of the Wilmington bench which was located south of the depot and near Canal Street was 9.37 feet above zero or the ascertained plane of mean lower low water, which is the datum plane used by the United States Geodetic Survey and the United States Engineering Department and the Los Angeles Harbor Department; that on the northwesterly portion of the island, northwest of the slough, there were two kinds of grass; there was a patch of glasswort on the westerly edge which was between ankle-high and knee-high, but the bulk of the area was covered by the cereal grass known as wild rice, which was very dense and the general height of it was at that time about waist-high, in some places shoulder-high, and even as high as the witness' head in a few places, but that the height of this dwindled down towards the edges, so that as the outer edge was reached the growth was sparser and sparser, and shorter and shorter, until it disappeared; that the wild rice grew on land that was below high water mark as the witness understood that.

(Testimony of David E. Hughes)

## CROSS-EXAMINATION

of David E. Hughes

That he did not have any personal familiarity with the Mormon Island region prior to 1900; that he did not know the condition of the Island in 1880 at the time of the Norway survey and that at the time he first saw the Island it was not a rocky island in any respect but was a sort of a soft land except a little ridge in the south part which was a little sandy and covered by prickly grass; that he was familiar with the early practice in the Land Department relating to surveys, knew what instructions were given in those times; that his knowledge went right back into the 80's; that it was the established practice of the Land Department in surveying areas to establish as high water mark an actual mark as it appeared on the land where the line could be ascertained or located; that the line had to be somewhat imaginary where there were no physical marks on the ground; that the instructions and practice were to follow the physical marks on the ground so far as there were any; that when there was not any physical mark on the ground, the practice was to carry the line across from one visible mark to the next visible mark if there didn't seem to be either hollow or hummock between; that it was the practice to the Land Department to establish as high water mark the real mark to be traced by the surveyor and was not an invisible line to be determined by spirit leveling; they did not use a spirit level at all; they were not required to; the practice required the surveyor to determine the high water mark from a line on the ground such as a

(Testimony of David E. Hughes)

line of vegetation if it existed; that meant high land vegetation; that he did not remember whether the custom and practice of the Land Department at that time recognized the propriety of running the high water mark across the mouths of small sloughs; that his attention was first brought to that in the Knight case as he studied it years later; the case of Knight v. United Land Association, and that he was taught in the engineering corps in the '90's that the high water mark meant the higher highs; that he had been instructed to use the higher highs as representing high water mark in connection with building structures and that he had no other instructions with reference to any other type of work; that if high water mark was the mean of the neap tides the glasswort would grow down to about that line on an elevation of approximately 4.3 feet above the datum plane of mean lower low water; that he himself considered the mean of the neaps, as referred to in the court decisions, to be 4.3 above the datum plane, whereas the mean of all the highs was 5.1 and of the higher highs 5.8, according to his computations, and that the glasswort grows down to approximately 4.3 feet above that datum plane and in some places a little below that, and it grows as high as twenty feet above the same datum plane;

"Q And you also know, do you not, that in sheltered places the glasswort, the dividing line between the glasswort and this rice grass that you spoke of, is higher than it is in places that are not sheltered?

A No, I can't say that I know it. I don't know that I had thought about that.

(Testimony of David E. Hughes)

Q I will have to refresh your memory then from your deposition. Do you recall a published debate between you and Mr. Von Gelder, relative to what should be treated as the dividing line between tide lands and upland?

A I do.

Q And do you recall that in your part of that, you made this statement which is found at page 477, line 18 of your deposition: 'In localities which I have observed, there is a marked difference between the straight sea grass on sheltered tide land and the crinkled salt grass on the marsh land, and the change occurs at an elevation which corresponds better with the mean of the higher high water than with the mean of all the highs.' Do you recall that statement in your publication?

A No, I do not. I could refresh my memory. I have a copy of that in my pocket.

* * *

Q This document that you handed me, I think, was the one I was referring to. This was published in April, 1910, being a pamphlet of the Association of Engineering Society.

A Yes, I recognize it.

Q Will you look at page 250, please?

* * *

A The quotation is correct.

Q BY MR. ASHBURN: At that time you believe that to be the case, did you?

A Yes. I was thinking about a different harbor.

THE COURT: Different what?

(Testimony of David E. Hughes.)

A Different harbors; the height to which the grass grows, or the depth to which it grows. It was different in a sheltered harbor from what it was in a large wind-swept harbor. The plane of mean high water is a plane attained by the averaging of the high waters and that is all it is, and the mean lower low water plane is merely the average height of the lower low waters."

That in the surveys which were made by the witness in and around San Pedro and the inner harbor of Los Angeles he used many bench marks which were located along the Southern Pacific Railroad between Wilmington and San Pedro and along the wharves between San Pedro and East San Pedro; that he knew the location of the bench mark known as "10.07" and the other bench marks in and around the inner harbor of San Pedro were established with reference to 10.07; that 10.07 itself was established in 1872 by the Engineer's Department; that this was done from tide readings made by that Department at Wilmington and levels were carried down from Wilmington as the east jetty was being built from Rattlesnake Island to Dead Man's Island, and the last bench mark on that jetty was at the southerly end of the timber construction of the jetty, 10.07, in what is now the mouth of the Bethlehem Shipyard Slip; that means that the bench mark was 10.07 feet above the mean lower low water plane; that 10.07 is the oldest bench mark known to the witness in San Pedro; that levels were transferred from the bench mark 10.07 over to San Pedro and then from one bench mark to another, and thereby this series of bench marks was established to which reference has

been made; in other words the various bench marks that were used as the basis of the work of the Engineer's Department were derived from this original 10.07, and that situation prevailed throughout all the period of time from its original establishment in 1875 down to the present date, and that the accuracy of that bench mark had been verified many times from the date of its original establishment, which was in 1875, down to the date of the trial of this action; that the plane of mean lower low water, as established in 1875, is the plane which was used throughout that whole period; in other words, a plane 10.07 feet below this bench mark; that he waded around on the Island at times when the tides were supposed to be at 5 feet or 5.1 above the datum plane but not when 4 and a fraction feet above the same datum; that he did not wade around on different days when the water was at those different heights and that he could determine the elevation of the land by the height of the water on his leg; that he could not say for sure whether he picked only a 5-foot water elevation for that purpose or whether he waded around when the water was a little over 4 feet; referring to his observations in December, 1906, and July or August, 1908, that he picked a tide that was 5.1 in the latter year, and that he picked no other water height in that year; that he does not know that he took 5.1 in 1906; that his aim then was to get the height of the ground and that by noting the depth of the water through which he waded and the height of the water at the time, he could subtract the one from the other and get the height of the ground; that he does not know that he found a 5.1 tide in 1906, and does not know what height

of water he used; that he simply recollects his conclusions from the examination; that he does not know how long he had to wait for a 5.1 tide in July or August of 1908, but is sure that he had that height; that he is not sure in which of those months it was; that he does not recall how it was that he got his comparison of the land heights with the 4.3 elevation; that he remembers his conclusion and that is all; that he does not remember whether he merely approximated the elevation of the land with respect to the 4.3 elevation by a process of wading around in the water when the water was 5.1; that he remembers wading and noting whether the water was ankle deep or up to the calves of his leg, and so on, and that is the same way he determined it with respect to the 5.1 in those years; that he also examined the southerly portion of the Island in July or August, 1908, and observed the place on the Island reached by the water when the tide was at an elevation of 5.1 feet; that he did not know the exact day of the month of July or August in which this observation was made, but it was some time prior to September 1, 1908; that in the studies for development of the basin of Los Angeles Harbor, it was necessary to get there with a wide, commodious ship channel, and it seemed impracticable to get there with a channel wide enough to meet future needs of commerce without encroaching more or less upon lands that had been patented; that the next question was how far could they encroach upon patented lands without also encroaching upon high water mark, knowing that if we encroached on high water mark the harbor lines would be inoperative in that much of their length as lay beyond high water, and as we did not know

(Testimony of David E. Hughes)

what would be adjudicated as high water, we noted whether the harbor lines would encroach upon lands that were 4.3 high, or also whether it would encroach upon land that was 5.8 high; that he particularly examined the Island to determine whether or not there was any land located thereon of an elevation of 4.3 feet, 4.8 feet or 5.1 feet above the datum plane of mean lower low water, for he did not know what line would finally be judicially determined to be the boundary line between tideland and upland and he desired to locate these particular elevations in reference to the matter of the establishment of harbor lines; that it was not the intention of the Harbor Land Board to establish harbor lines across privately-owned land.

"Some lawyers and engineers contended at the time that the lowest high tides of the month, what are today called neap tides, are the limits of partition between proprietary lands and public lands of states. Others contended that it was the average of all highs. While others, including myself, contended that inasmuch as many of those highs were not in fact high, a still higher line should be chosen, namely, 5.8.

THE COURT: Then, do I understand that opinion varied between this 4.3 and 5.8?

A Yes.

* * *

Q BY MR. ASHBURN: At the risk of being tedious, I am going to try once more to find out, Mr. Hughes, how you determined whether any given land was above or below 4.3.

(Testimony of David E. Hughes)

A By noting its height relatively to the surface of the water, whose height I knew at the time.

Q Was that higher water than this 4.3?

A It didn't make any difference.

Q Well, do you know whether you used a higher or a lower water?

A I know that I must have used a tolerably high water, because low water line would have been above it, and there would not have been any wading then.

Q You determined it by wading?

A Yes.

Q I will ask you if you did not testify as follows in your deposition, at page 449, line 6: 'Did you determine the land elevations by reference to the water as it then existed on the ground? A. Yes, but not as to the depth of the water; simply to note that the land was below water at the time.' Did you so testify?

A Doubtless, if it is there, I did. I don't doubt but that it is there."

The witness further testified that the land which he had designated as above 3 feet in elevation, in the northerly portion of the Island, was approximately along the edge of grass as shown on Exhibit 5; that he could not say how much above the slough would be the elevation of the line connected by 4-41, 4-42 and 4-43; that he could not tell what was the greatest depth known to him of the "small slough" as shown on Exhibit 5; that he could not row a boat through it at low tide; that he could only row part way through it at low tide; that that was the slough mentioned by him as severing Mormon Island into two islands; that the swale designated by him was on the

(Testimony of David E. Hughes)

southerly end of the Island approximately from 3-6 easterly to some point which the witness could not designate; that the swale crossed the highest part shown on the Turner map.

The witness was asked to examine the photographs which had been introduced in evidence, Plaintiff's Exhibit No. 11, upon which he had during a recess, at the request of counsel for plaintiff, placed the appropriate marks thereon indicating his opinion as to the extent of the Island, and he placed on Plaintiff's Exhibit No. 11 the letters "A", "B", "C", "D" and "E"; he further testified that of "A" marked the extreme northerly end of grass, "B" marked the easterly edge of the southerly end, and "C" approximately the most southerly point of the Island, "D" the easterly side and "E" the westerly side of what he thought to be the slough severing the Island at high tide.

"Q In other words, you are guessing as to that, whether that is a slough or not, aren't you?

A Well, I see a little streak of water there. I am not sure whether that one is it or whether it may be a little this way. The rice grass was so tall that it may possibly have hidden the correct slough."

That the area from "E" to "A" represents what the witness stated and still asserts to have been under water at 4.7 tide, namely, the dark streak running from "E" to "A"; that this is the witness' interpretation of the photograph but that he may be in error as to the location on the photograph of the slough; that the photographs were taken from a distance of between a half mile and a mile

from the Island and that he determined the elevation of the tide at the time the photographs were taken by a man who was reading the tide every few minutes during the time the photographs were being taken; that he reported the results of his tide readings to the witness; that the United States Coast & Geodetic Survey is the governmental authority on the subject of tides, generally recognized by engineers and folks having to do with tides as being the authority on the subject; that their predictions are the ones that everybody uses that has to do with tides; that they can predict tides years in advance and can go back over their records for a period of twenty years and ascertain the elevation reached by the tides on any particular day desired; that they pay particular attention to these various datum planes such as mean high water, mean lower low water, etc.; that they publish tables that show what that Department considers to be the elevation of those different planes above the datum plane of mean sea level; that their datum plane is the one that was described by the witness in his testimony; that he has been informed that the United States Coast & Geodetic Survey had established and published recently the elevation of 4.7 feet as the elevation of mean high tide above the datum plane of lower low water; that it had established to its own satisfaction that the elevation is 4.7 feet and not 5.1 feet above this datum plane at the present time; that as a practical matter, the datum plane that has been in use since 1875 down to the present time was the one that referred to bench mark 10.07 or one of its derivatives; that on certain days of the month the higher high waters would extend beyond the line of mean high tide and inundate land

(Testimony of David E. Hughes)

lying higher than that line; that this is the natural action of the tidal waves themselves without reference to the effect of winds; that the higher high waters of most days in the month will run beyond the mean high tide line and hence inundate land that lies within reasonable limits above that mean; that the Boeschke map is to a certain extent a compilation or copy from some former map; that certain soundings in the channel were copies from a previous survey made by Mr. Boeschke but that the topography for the Boeschke map, Plaintiff's Exhibit No. 8, was all as determined by Boeschke in December, 1883; that the earlier survey was one made in 1877; that there are no field notes of the Boeschke survey in existence; that they were destroyed years ago; that the earlier survey which was partially carried into the Boeschke map was likewise destroyed by the witness himself; that he has used his own judgment from time to time as to what old records should be destroyed in the Los Angeles office of the United States Engineers and that although he cannot remember the fact, he probably destroyed the notes of the Boeschke survey; that if there were any previous surveys included in the map that they were all made by Mr. Boeschke at earlier periods; that there are no field notes available at this time of the Boeschke survey; that they have all been destroyed and, to the best of the witness' recollection, he thought he had destroyed them; the Morocco book, Exhibit 9, is in part a collection of data from various sources; that the statements found on the first page or preface thereof are true; that there was not as much land on Mormon Island above the line of mean high tide as shown on the Turner survey. The witness'

(Testimony of David E. Hughes)

attention was called to the portion of Mormon Island on Exhibit 4, which has the word "Mormon" endorsed on it, and particularly to the shape of the high water mark on the southerly end of it. His attention was also directed to Exhibit 5 and the shape of the heavy blue line thereon. He testified that the high water line of the Turner map, Exhibit 4, follows the outer or light blue line on Exhibit 5 from somewhere around 5-5 down to 1-12; that he, in 1900, had found the strip of land above high water mark to be narrower than that shown in the Turner notes and narrower than the land included within the heavy blue line on Exhibit 5, which he had helped Mr. Hale make; that he had concurred in the location of the heavy blue line on that map and that means that he, the witness, thinks the Turner map was wrong; that at 4-54 on Exhibit 5, the point is shown as a part of the high water mark although the field notes show it as edge of grass and that he, the witness, claims that the notes were wrong in that respect and Exhibit 5 correct; that he likewise claims that at the south end where he and Mr. Hale discarded about 50 or 60 of the Turner notes relating to high water mark, the notes were in error consisting of designating the points as high water mark instead of edge of grass; that Exhibit 6, the map published as a part of Document 357, shows high water mark at the south end of the island in the same manner as Exhibit 4.

"Q And likewise this hatched portion around the white part of Mormon Island on the printed map, Exhibit 6, this hatched portion around it and southwesterly of what is there shown to be a slough, conforms generally, does it not, with the portion marked 'island' and around this

(Testimony of David E. Hughes)

other portion which we will call a ridge, which has most of the word 'Mormon' on it.

A That is right.

Q In other words, if an error or series of errors was carried into this Exhibit 4 of Mr. Turner's, it has also been carried into the published map, isn't that right?

A Yes.

Q Your claim is that both the Turner maps, Exhibit 4, and the published map, Exhibit 6, are incorrect, and instead of the lines that you find there you should find what is shown on here in the heavy blue lines on Exhibit 5?

A I do.

Q Except that you go a little further, don't you, and claim from your own inspection on the ground that Mr. Turner found too much high land?

A That is my claim."

The witness further testified that he was certain that the slough was not correctly shown on either Exhibit 4 or Exhibit 6, and that he claims that the only proper depiction of it is the one shown on Exhibit 5; that he found from the notes of the Turner survey that his last day's survey on Mormon Island had not been copied at all into the map.

"Q In other words, you found an inconsistency in his notes with respect to the high water mark, didn't you?

A Yes."

That the claim of an error on Turner's part with respect to 4-54 was based on what the witness saw on the ground himself and was not deduced from the Turner notes; that he interpreted or regarded that as an obvious error in the

notes, not obvious to a stranger but to one acquainted with the ground; that he carried into his interpretation of the Turner notes what he considered to be some of his own personal information as to what the survey should have shown when Mr. Turner made it; that he used his knowledge of the ground to detect what was to him an obvious error in the notes:

"Q Your present position is that not only were the Turner notes conflicting and erroneous, but that in some respects the Turner survey was wrong?

A I found no evidence of mistake in anything except the recording of the work.

Q Well, you rejected some sixty notes, didn't you?

A That was in the recording, but that did not apply to Mr. Turner's work.

Q BY MR. ASHBURN: In other words, you would have the court infer that Turner determined that those sixty points were edge of grass but that his recorder who sits by him and took down what he called off, wrote it down wrong, is that right?

A I don't know that he called it off right.

Q In other words, you don't know how that error happened to be there, did you?

A No."

That the witness is acquainted with the fact that there were some heavy floods in the San Gabriel River or Los Angeles River or both between 1880 and 1899; that during that period a part of the waters of these rivers emptied into the inner harbor while a portion of their waters made their exit into the sea and what is now the mouth of Long

(Testimony of David E. Hughes)

Beach Harbor; that the latter mouth was not dammed by the railroad until 1896 and the floods were in 1884 and 1889; that they are recorded as very heavy floods which, from evidences the witness was able to gather, he thinks exceeded the floods of 1914 and 1916; that he found that the last mentioned floods resulted in a very heavy silting in the upper end of the harbor. At the northeast corner of the Turner map, Exhibit 4, is shown Nigger Slough.

"Q Show us about where the river came in, can you, roughly, on this map?

A On the big flood it came all over the land, but when it was not big enough to come through there, and when the Long Beach outlet had been closed by the railroad in 1896 and remained closed until 1908, then whatever floods that came, if they were not big enough to go over all the land, followed this slough on which the soundings are."

In other words, the channel would be indicated by the soundings shown in the corner of the map and the general course of the stream would be indicated in the same manner; that a heavy flood would come from the northeast corner of the map and the general sweep of it would be diagonally across the map and the north end of the Island would be directly in the path of attack.

"MR. BUTTS: I have a certified copy of a harbor line map as established by the War Department for the San Pedro Harbor, showing Mormon Island upon it, and also showing upon the map the statement that the plane of reference is mean lower low waters by Coast Geodetic Survey, and average rise of tide above the plane of reference is 5.1 feet. We offer this map in evidence.

(Testimony of David E. Hughes)

MR. ASHBURN: Before that is ruled upon, it having been offered without any basis having been laid at all for it, I ask counsel if he will stipulate that the outlines on this map are but a copy of the outlines of the Turner map, Exhibit 4?

MR. BUTTS: That is my understanding, yes. But I want to show the establishment of these harbor lines, which have been testified to by Mr. Hughes, and also this certificate here as to the average. In other words, the elevation of the mean high tide line.

MR. ASHBURN: We object to that for the reason it is incompetent to prove any of the matters that counsel has suggested, and not having been made for the purpose of determining any of those matters; on the further ground that it is a well established proposition of law that the establishment of harbor lines in and of themselves has no effect whatever upon property lines, and all it amounts to is, if they run a harbor line across what is considered to be high land, that is a declaration of intention of the government to some day take your land away from you by eminent domain, if they decide they want to use it. Hence, the object of the map is entirely aside from any of the issues in this case, and it cannot fairly throw any light upon it; and no foundation laid, and it has corrections on it down to 1930."

The document was received in evidence and marked Plaintiff's Exhibit 12.

(Testimony of David E. Hughes)

[EXHIBIT NO. 12.]

UNITED STATES [Emblem] OF AMERICA
WAR DEPARTMENT

Washington, January 16, 1931

I hereby certify that the copies of the pamphlet entitled "United States Harbor Lines for Inner and Outer Harbors, San Pedro, Cal." and map showing the harbor lines at San Pedro Harbor established by the Secretary of War, July 29, 1908, attached hereto, are true copies of originals filed in the Office of the Chief of Engineers, U. S. Army, as 46054/220 and 46054/221, respectively.

G. B. Pillsbury,
G B Pillsbury
Brigadier General,
Acting Chief of Engineers.

I hereby certify that G. B. Pillsbury, who signed the foregoing certificate, is the Acting Chief of Engineers, and that to his certification as such full faith and credit are and ought to be given.

In testimony whereof I, Patrick J. Hurley, Secretary of War, have hereunto caused the Seal of the War Department to be affixed and my name to be subscribed by the Assistant Chief Clerk of the said Department, at the City of Washington, this 17th day of January, 1931.

[Seal]

Patrick J. Hurley
Secretary of War.

By F. M. Hoadley
Assistant Chief Clerk.

## UNITED STATES HARBOR LINES FOR INNER AND OUTER HARBORS, SAN PEDRO, CAL.

Description for the Purpose of Modifying and More Clearly Defining the position of the lines approved by the Secretary of War December 30, 1905, and for the establishment of additional lines for the outer harbor and inner harbor, recommended July, 1908, by Board of Officers appointed by S. O. No. 13, Office of the Chief of Engineers, Washington, April 28, 1908.

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Note 1. The reference stations, indicated by letters in the description and on map, are described below under the head of "Reference Stations."

Note 2. The initial point of the survey is "R", the U. S. Coast and Geodetic Survey Station on Deadmans Island. The coordinates (in feet to the nearest tenth) of Harbor Line Stations, reference points and land marks, referred to Station "R" are given below under the head of "Coordinates."

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### OUTER HARBOR.

Pierhead line.—Beginning at Station 15, which is S 21° 34′ 15″ W, 1202.7 feet from "R", and on the south end of the west jetty; thence S 17° 35′ E, 2250 feet to Station 219; thence S 72° 25′ W, 650 feet to Station 217; thence N. 17° 35′ W, 3855 feet to Station 233; thence S 72° 25′ W, 400 feet to Station 231, from which "J" bears N 17° 35′ W, 1500 feet; thence S 17° 35′ E, 4113.3 feet to Station 215; thence S 35° 02′ 30″ W, 683.3 feet to Station 214; thence N 54° 57′ 30″ W, 1000 feet to Station

218; thence N 17° 35′ W, 3733.3 feet to Station 225; thence S 72° 25′ W, 600 feet to Station 227; thence S 17° 35′ E, 156 feet to Station 224, from which bulkhead Station "L" on the north boundary of U. S. Reservation, and hereinafter described, bears S 84° 18′ W, 750.4 feet; thence S 84° 18′ W, 40.9 feet to a point on the bulkhead line hereinafter described.

Beginning again at a point from which bulkhead Station "K" on south boundary of U. S. Reservation, and hereinafter described, bears N 89° 53′ W, 761.4 feet; thence S 89° 53′ E, 42 feet to Station 222, from which Station 224 bears N 17° 35′ W, 1463.4 feet; thence S 17° 35′ E, 3830.6 feet to Station 213; thence S 35° 02′ 30″ W, 790.1 feet to Station 207 on the axis of the breakwater.

Bulkhead line.—The Bulkhead line as established is 1000 feet from the outer pierhead line, and 40 feet from the pierhead lines defining the channels (the 40 feet being the minimum distance, measured at

2

mean lower low water level, from the pierhead line to the bulkhead, whose construction below that level may approach but not pass the pierhead line), and is more particularly described as follows:

Beginning at Station 15 of the pierhead line; thence S 72° 25′ W, 40 feet to a point; thence S 17° 35′ E, 1250 feet to a point 40 feet S 72° 25′ W from Station 14 on the pierhead line; thence S 72° 25′ W, 570 feet to a point 40 feet N 72° 25′ E from Station 242 on the pierhead line; thence N 17° 35′ W, 2895 feet to a point; thence S. 72° 25′ W, 480 feet to a point; thence S 17° 35′ E 2925.55 feet

to a point 50.33 feet S 35° 02′ 30″ W from Station 9 on the pierhead line; thence S 35° 02′ 30″ W, 1346.44 feet to a point 50.33 feet N 35° 02′ 30″ E from pierhead Station 218; thence N 17° 35′ W, 3742.75 feet to a point; thence N 17° 35′ W, 2895 feet to a point; thence S 72° 25′ E, 187.6 feet to a point 40.9 feet S 84° 18′ W from pierhead Station 224; thence S 84° 18′ W, 709.5 feet to Station "L" on the north boundary of U. S. Reservation, from which "X" bears S 70° 10′ W, 114.5 feet.

Beginning again on south boundary of the U. S. Reservation at Station "K" from which "W" bears N 74° 29′ W, 77 feet; thence S 89° 53′ E, 761.4 feet to a point 42 feet N 89° 53′ W from pierhead Station 222; thence S 17° 35′ E, 2615.6 feet to a point 50.33 feet S 35° 02′ 30″ W, from station 211 on the pierhead line; thence S 35° 02′ 30″ W, 1713.6 feet to Station 209; thence N 76° 50′ W, 1215 feet more or less to the easterly shore of Point Fermin.

## INNER HARBOR, FROM ENTRANCE TO NORTH SIDE OF SMITHS ISLAND.

West side pierhead line.—Beginning at Station 15, from which "R" bears N 21° 34′ 15″ E, 1202.7 feet; thence along the axis of the west jetty (passing through Station ddd, ccc, bbb, aaa, zz, and yy) to Station 16, from which "R" bears S 50° 54′ 50″ E, 1277.9 feet; thence N 25° 45′ 45″ W, 3100 feet to Station 18, which bears S 73° 45′ E, 2.5 feet from "M"; thence in a curve of 2827 feet radius, 1583.5 feet to Station 19, the center of the curve, Station 298, being N 67° 10′ 25″ E from Station 18 and S 80° 44′ 02″ E from Station 19; thence

(Testimony of David E. Hughes)

N 14° 59′ 10″ E, 553.4 feet to Station 20; thence N 26° 42′ 30″ E, 1549.4 feet to Station 21, which is 193.6 feet easterly of the line "DE", measured at right angles to that line from a point 63.2 feet northerly of "E"; thence N 23° 00′ 30″ E, 703 feet to Station 23, which is 258 feet easterly of line "DE", measured at right angles to that line, from a point 763.25 feet northerly of "E" thence N 45° 10′ 20″W, 233.6 feet to Station 24; thence N 72° 14′ 34″ W, 50 feet to Station 25, a point in the line "DE" 869.6 feet northerly of "E".

3

Beginning again on the south side of Smiths Island at Station 30, a point on the line "DE" 1081 feet northerly of "E"; thence S 72° 14′ 34″ E, 290 feet to Station 29; thence N 17° 45′ 26″ E, 883.8 feet to Station 28; thence N 32° 26′ W, 312.3 feet to Station 27, a point 50 feet from line "DE", measured at right angles to "DE" from a point 2164.8 feet northerly of "E"; thence N 17° 45′ E, 778.4 feet to Station 474; thence N 42° 15′ W, 57.7 feet to Station 476, a point in line "DE" 2628 feet southerly of "D".

West side bulkhead line.—Beginning at Station 15 of pierhead line; thence along the axis of the west jetty (passing through Stations ddd, ccc, aaa, zz, yy, xx, and ww) to Station 17; thence northerly, parallel to the pierhead line and 90 feet westerly therefrom, to a point in the pierhead line joining Stations 23 and 24; thence along the pierhead line to Station 25.

Beginning again on the south side of Smiths Island at Station 30 and following the pierhead line to a point whose perpendicular distance westerly from the line join-

ing Stations 28 and 29 is 90 feet; thence northerly, parallel to the line joining Stations 28 and 29, to an intersection with the pierhead line joining Stations 28 and 27, thence following the pierhead line through Station 27 to a point on the pierhead line 46.2 feet S 17° 45′ W from pierhead Station 474; thence N 42° 15′ W, 57.7 feet to a point in the line "DE" 2674.2 feet southerly of "D".

East side pierhead line.—Beginning at a point in the axis of the east jetty 1386 feet northerly of "R"; thence westerly to Station 290, from which "R" bears S 18° 13′ E, 1386 feet; thence in a curve of 2292 feet radius, 1067.7 feet to Station 294; from which "Q" bears N 25° 36′ 20″ W, 694.4 feet, the center of the curve, Station 292, being N 88° 54′ 55″ W from Station 290, and S 64° 23′ 40″ W from Station 294; thence N 64° 14′ 15″ E to a point in the axis of the east jetty.

Beginning again at Station "Q"; thence S 64° 14′ 15″ W, 90 feet to Station 296, from which Station 294 bears S 32° 59′ 45″ E, 700 feet; thence N 51° 02′ 45″ W, 899 feet to Station 301, which is 500 feet from the pierhead line joining Stations 16 and 18; thence parallel to the said pierhead line N 25° 45′ 45″ W, 333.2 feet to Station 302; thence in a curve of 2327 feet radius, concentric with the curve on the west side of the harbor, 1267.4 feet to Station 303, the center of the curve, Station 298, being N 67° 28′ 24″ E from Station 302 and S 81° 19′ 14″ E from Station 303; thence N 14° 58′ 50″ E, 379.5 feet to Station 304; thence N 25° 49′ 15″ E, 1091.25 feet to Station 103, which is 502.7 feet from the pierhead line joining Stations 20 and 21, and from which "N", a concrete monument at the north.

end of the "single work" of the east jetty, bears S 55° 45′ 40″ E, 284 feet; thence N 31° 58′ 45″ E, 303.8 feet to Station 104, from which "E" bears N 54° 48′ W, 720 feet; thence N 38° 46′ 20″ E, 1048.8 feet to Station 105, a point 1063 feet from the line "DE" on the west side of the harbor, measured at right angles to "DE" from a point 763.25 feet northerly of "E"; thence N 35° 04′ E, 332.8 feet to Station 106, a point 1162 feet from the line "DE", measured at right angles to "DE" from a point therein 1081 feet northerly of "E"; thence N 41° 50′ 40″ E, 1395.9 feet to Station 107, from which "I" bears S 39° 31′ 45″ E, 850 feet.

East side bulkhead line.—Beginning at a point in the east jetty 1386 feet northerly from "R"; thence northerly along the axis of the east jetty to a point therein, from which pierhead Station 294 bears S 64° 14′ 15″ W.

Beginning again at station "Q"; thence northwesterly along the east jetty to a point 90 feet distant from the pierhead line joining Stations 296 and 301; thence northerly parallel to the pierhead line and 90 feet easterly therefrom, to Station 120, from which "I" bears S 39° 31′ 45″ E, 759 feet.

## INNER HARBOR—WEST BASIN.

Pierhead line.—Beginning at Station 25, a point in line "DE" 869.6 feet northerly of "E"; thence N 72° 25′ W, 10 feet to Station 49; thence S 85° 46′ W, 291.1 feet to Station 50; thence N 68° 26′ 10″ W, 300.6 feet to Station 51; thence N 53° 10′ W, 456 feet to Station 52; thence N 46° 45′ 40″ W, 237 feet to Station 53; thence N 48°

27′ 10″ W, 1284.2 feet to Station 54; thence N 00° 14′ W, 294 feet to Station 486, from which "j" bears S 57° 46′ W, 87 feet; thence N. 28° 30′ E, 1146.2 feet to Station 488; thence S 77° 45′ W, 3000 feet more or less to the high water line on the west shore of the bay.

Beginning again on the south side of Smiths Island at Station 30, a point in the line "DE" 1081 feet northerly of "E"; thence S 89° 41′ 30″ W, 352.2 feet to Station 31; thence N 55° 57′ 40″ W, 656.4 feet to Station 32; thence N 47° 26′ 10″ W, 1365.6 feet to Station 484; thence N 28° 30′ E, 1450 feet to Station 482; thence N 77° 45′ E, 522.8 feet to Station 480; thence S 64° 45′ E, 933.1 feet to Station 478; thence S 42° 15′ E, 642.3 feet to Station 476, a point in line "DE" 2628 feet southerly of "D".

Beginning again at Station 40, a point in line "DE" 1993 feet southerly of "D"; thence N 27° 15′ W, 1060.5 feet to Station 520; thence N 17° 45′ E, 3670 feet to Station 512; thence S 86° 15′ W, 1775.3 feet to Station 508, from which "n" bears N 33° 45′ W, 1312.9



feet; thence N 33° 45′ W, 1300 feet more or less to high water line on the north shore of the bay.

Beginning again on the high water line on west shore of the bay; thence N 77° 45′ E, 3500 feet more or less to Station 494, from which "k" bears N 7° 08′ 20″ E, 1545.6 feet, and Station 520 bears N 77° 45′ E, 1635.6 feet, and Station 488 bears S 28° 30′ W, 594 feet; thence N 47° 45′ E, 1233 feet to Station 498, a point 800 feet distant from line adjoining Stations 520 and 512; thence N 3° 45′ W,

2251.6 feet to Station 500; thence N 33° 45′ W, 1700 feet more or less to high water line on the north shore of the bay.

Bulkhead line.—The bulkhead line is parallel to and 40 feet shoreward from the pierhead lines throughout; except in the channel southerly of Smiths Island, where it is coincident with the pierhead line from Station 30 through Stations 31 and 32 to a point 41.2 feet S 47° 26′ 10″ E from pierhead Station 484; and from Station 25 through Stations 49, 50, 51, 52, 53 and 54 to Station 486; thence runs N 61° 30′ W, 40 feet.

## INNER HARBOR—EAST BASIN.

Pierhead line—Beginning at Station 40, a point in line "DE" 1993 feet southerly of "D"; thence S 42° 15′ E, 500 feet to Station 472; thence N 64° 11′ 30″ E, 649.8 feet to Station 470; thence N 3° 45′ W, 1550 feet to Station 468; thence N 38° E, 2051.1 feet to Station 466; thence S 3° 45′ E, 450.5 feet to Station 464; thence S 38° W, 1150 feet to Station 462; thence S 3° 45′ E 546.2 feet to Station 460; thence S 15° 17′ 30″ E, 798.2 feet to Station 456; thence S. 5° 08′ W, 1034.3 feet to Station "O"; thence S 65° 01′ 30″ E, 91.9 feet to Station 452; thence N 49° 31′ 00″ E, 244.1 feet to Station 450; thence N 38° E, 2831.9 feet to Station 438; thence N 03° 45′ W, 1400 feet to Station 434; thence N 48° 45′ W, 973 feet more or less to Station 430 on the east line of C street, Wilmington, prolonged; thence northerly along said line 339.1 feet more or less to Station 426 on the southerly line of Water Street.

(Testimony of David E. Hughes)

Beginning again at pierhead Station 107, from which "I" bears S 39° 31′ 45″ E, 850 feet; thence in a curve of 4297.3 feet radius, 1968.2 feet to Station 404, the center of the curve, Station 514, being N 25° 45′ 30″ W from Station 107 and N 52° W from Station 404; thence N 38° E, tangent to the above curve, 2922.2 feet to Station 406, from which an old 4″ x 4″ post, Station 446, bears S 67° 10′ 40″ W, 1003.5 feet; thence N 67° 10′ 40″ E, 4049.1 feet to Station 408, at which is an old 4″ x 4″ post marked "IB 13".

Beginning again at Station 410, 700 feet N 33° 51′ W from Station 408; thence N 33° 51′ W, 1566.7 feet to Station 412. Beginning



again at Station 414, from which Station 412 bears S 33° 51′ E, 600 feet, and an old 4″ x 4″ post, Station 416, marked "IB 12", bears N. 33° 51′ W, 1026 feet; thence S 38° W, 4366 feet to Station 442, which is 500 feet distant from line joining Stations 438 and 434, and from which Station 438 bears S 38° W, 750.9 feet; thence N 3° 45′ W, 1600 feet to Station 424; thence N 38° E, 1685 feet to Station 420; thence N 3° 45′ W, 600.7 feet to Station 418; thence S 38° W, 2132.3 feet more or less to Station 422 at intersection with the south line of Water Street, Wilmington; thence westerly along the south line of Water Street 890 feet more or less to pierhead Station 426 above described.

Bulkhead line.—Beginning at Station 120 of bulkhead line; thence N 41° 50′ 40″ E, 133.3 feet to a point 40 feet distant from the pierhead line; thence parallel to and 40 feet shoreward from the pierhead line throughout, being

discontinuous where the pierhead line is discontinuous, for distances of 700 feet and 600 feet at the southeast corner and northeast corner respectively of the east basin.

The distance given between bulkhead lines and pierhead lines in the inner harbor, whether 90 feet or 40 feet, is to be the minimum distance, measured at mean lower low water level, from the pierhead line to the bulkhead, whose construction below that level may approach but not pass the pierhead line.

Bulkheads below mean lower low water may have slopes not flatter than 1 to 1½ towards, but must not pass, the pierhead lines regardless of the depth to which the channels may be dredged along those lines.

Provided, That no obstruction to navigation shall be placed in the existing channel passing west of Mormon Island to Wilmington and Long Beach Harbor until another channel of equal navigable capacity shall have been provided in its stead.

Provided further, that all lines heretofore approved are superceded by lines herein described.

## REFERENCE STATIONS.

[All bearings are from the true meridian passing through U. S. C. & G. S. station on Deadmans Island, which station is herein designated "R".]

"A" Two-inch round iron 36 inches long, with top 9 inches below top of ties, 4.5 feet south of center of main track of Southern Pacific Company at switch about 2300 feet easterly of entrance to railroad station at Wilmington. From "A" a switch-stand bears N 37° W, 13.75 feet distant, and an

old well-casing 12 inches diameter and projecting 13 inches bears S 54° W, 107.3 feet.

"B" Two-inch round iron 36 inches long, in center of main track of Southern Pacific Company near easterly end of long tangent, 442 feet easterly of entrance to railroad station at Wilmington. From "B", "C" bears S 46° 58′ 37″ W, 3960.2 feet distant.

"C" Two-inch round iron 36 inches long, set in concrete in center of main track of Southern Pacific Company 400.3 feet southerly of south end of third trestle from Wilmington. From "C", "B" bears N 46° 58′ 37″ E, 3960.2 feet.

"D" Two-inch round iron 36 inches long, set in concrete in center of main track of Southern Pacific Company 19 feet northerly of the northerly end of the fifth trestle from Smiths Island. From "D", "E" bears S 17° 45′ 26″ W, 5600 feet.

"E" Two-inch round iron 36 inches long, in center of main track of Southern Pacific Company 869.6 feet southerly of south end of trestle between Mainland and Smiths Island near first point of curve south of Smiths Island. From "E", "D" bears N 17° 45′ 26″ E, 5600 feet, and white 6″ x 6″ post on bluff, marked "S. P. L. Co.," bears N. 29° 58′ W, 135.7 feet.

"F" Two-inch round iron 36 inches long, with rocks around it, 12 feet east of center of public wagon road from Wilmington to San Pedro. From "F" the mouth of 12″ sewer-pipe culvert marked "4866"

bears N 24° 22′ E, 14.5 feet, and "G" bears N 9° 09′ 16″ W, 2629.2 feet.

"G" Two-inch round iron 36 inches long, 12 feet east of center of public wagon road from Wilmington to San Pedro. From "G" the mouth of 24″ sewer-pipe culvert bears S 43° 30′ W, 14.7 feet, and center of fresh water well near edge of marsh bears N 61° 45′ E, 345.3 feet.

"H" Two-inch round iron 36 inches long, on north side of main track of San Pedro, Los Angeles & Salt Lake Railroad Company and 9.7 feet from its center, marking point of intersection of the two tangents northeast of Brighton Beach Station.

"I" Two-inch round iron 36 inches long, with top 5½ inches below top of rails, in center of main track of San Pedro, Los Angeles & Salt Lake Railroad Company near Terminal Island Station. From "I" the northwest corner of store and post-office bears N 84° 03′ E, 37.4 feet, and the base of easterly post supporting station-shed bears S 19° 24′ W, 31.4 feet.

"J" Two-inch round iron 36 inches long, near root of west jetty near foot of San Pedro Street, between the double tracks of the Pacific Electric Railway Company, 2 feet west of west rail of east main track. From "J", U. S. C. & G. S. station "Timm" ("Y") bears S 72° 15′ 47″ W, 114.23 feet, and station "R" bears S 57° 22′ 34″ E, 2827.2 feet.

"K" An unmarked point on south boundary of U. S. Reservation near high-water line, from which U. S. C. & G. S. station "Old" ("W") bears N 74° 29′ W, 77 feet, and station "R" bears N 63° 11′ 05″ E, 4381.6 feet.

"L" An unmarked point on north boundary of U. S. Reservation near high water line, from which the stone monument ("X") on bluff, marking said boundary bears S 70° 10′ W, 114.5 feet, and station "R" bears N 81° 17′ 44″ E, 4345.9 feet.

"M" Nail in top of pile cluster southeast corner Southern Pacific wharf, 21 inches westerly and 21 inches northerly from face of fender piles on front and end respectively. "M" is N 73° 45′ W, 2.5 feet from pierhead station 18.

"N" A copper bolt set in a concrete monument, 1½ feet square, which stands at the north end of the single work of the east jetty. The northeast corner of Crescent boarding house is 29.8 feet distant, and southwest corner of Salt Lake R. R. engine house is 9.7 feet distant.

"O" 1½" galvanized pipe 4 feet long set 4 feet in the ground and covered with rocks, outside of present high water mark, at meander corner No. 1 of public land survey of 1880, as restored by U. S. Assistant Engineer in 1904. From "O" an old pile stump bears S 26° W, 13.2 feet.

"P" Nail in center of center pile of a solitary row of 3 piles 5 feet apart projecting about 3½ feet above ground, on Mormon Island.

(Testimony of David E. Hughes)

"Q" A copper bolt set in concrete monument, 1½ feet square, which stands at the northerly end of the double work of the east jetty, in the northeast corner of that work.

"R" U. S. C. & G. S. station "Deadmans Island" on summit of Deadmans Island, now marked by 4" sewer pipe 27 inches long set 3 feet in the ground, with 2" x 3" stake in center thereof and surmounted by old tall 3-legged signal. A lower 4-legged signal bears S 32° 25' W, 34 feet distant.

"S" U. S. C. & G. S. station "Pt. Fermin Light."

"T" U. S. C. & G. S. station "Pt. Fermin" with signal standing.

"U" U. S. C. & G. S. station "R. R. Flagstaff".

"V" U. S. C. & G. S. station "Solitary" with signal standing.

"W" U. S. C. & G. S. station "Old" with signal, near southeast corner of U. S. Reservation.

"X" A stone on north boundary of U. S. Reservation near edge of bluff.

"Y" U. S. C. & G. S. station "Timm" with signal, near edge of bluff at Timm's Point.

"Z" U. S. C. & G. S. station "Catholic Church Spire".

"a" Mast of wireless telegraph station in San Pedro.

"b" Whitish, rough stone 8"x13" projecting 9 inches, marked with ¾ inch hole ½" deep and letters "U. S.", 30.4 feet east from center of Beacon Street, and 5 feet south from center line of Ninth Street produced, as measured from their curbs.

(Testimony of David E. Hughes)

"d" One-inch pipe 36 inches long driven 32 inches in Plaza north 34° 45′ 41″ E. 295.18 feet from "b".

"e" U. S. C. & G. S. station "Presbyterian Church Spire" (called "Methodist" in Coast Survey records).

"f" U. S. C. & G. S. station "Public School", cupola and flag.

"h" Cupola and flag-pole on Clarence Hotel.

9

"j" One-inch pipe 36 inches long, driven 33 inches, 1½ feet from foot of stone pitching, side of country road. A 4″ x 4″ stake projecting 8 inches marked "M H W" bears N 7° 32′ W, 43.1 feet distant.

"k" One-inch pipe 36 inches long, driven 3 feet vertically in foot of bank 23 feet west of the center of county road and 4 feet above it, 40½ feet from stone pitching on east side of road, 83 feet N 22° W from outlet of wooden culvert.

"l" Stand-pipe on San Pedro water-supply main, on summit of hill westerly from stations "k" and "F".

"n" A fresh water well between county road and bay, square wooden walls. A windmill over its center. A tank and public watering trough near by.

"o" One-inch pipe 36 inches long driven 32 inches in ground in rank grass near marsh grass. No near witness.

"p" South gable of old "U. S. Warehouse" in Wilmington.

(Testimony of David E. Hughes)

"q" Apex of roof of high railroad water tank in Wilmington, N. 71° 43′ W, 177.4 feet from "r".

"r" Station "Bench" of 1897 survey made for Deep-Water Harbor Board, south of Southern Pacific railroad in Wilmington and east of road leading to wharf. A wooden stake with tack, surmounted by four-legged signal. Iron pipe with brass cap marked "Geol. B. M. 7 ft." bears N. 14° E, 2.3 feet.

"s" A one-inch pipe 36 inches long driven 2½ feet in bare spot surrounded by marsh grass, from which old 4″x4″ stake marked "Wilmington" bears N 0° 59′ E, about 960 feet distant. No near witnesses.

"t" A copper nail in top near center of 12″ sheet-piling forming south end of double work of east jetty.

"v" One-inch pipe 36 inches long driven 40 inches in sand dune 567.84 feet N 51° 58′ 25″ W from "I".

"w" One-inch pipe 36 inches long driven 36 inches on site of old U. S. C. & G. S. signal "Hydro" below high-water mark 144.92 feet N 43° 47′ 52″ W from "v."

"x" One-inch pipe 36 inches long, driven 3 feet in rocks near westerly edge of railroad embankment, 314 feet northerly from trestle "504 C", 9.31 feet easterly from line "ED" produced, measured at right angles to that line, and distant 295.67 feet N 19° 33′ 45″ E from "D".

"y" Smokestack on ship-yard mill, Mormon Island.

(Testimony of David E. Hughes)

"z" U. S. C. & G. S. Station "Terminal", flagstaff on center of outer end of Terminal wharf.

"aa" U. S. C. & G. S. station "Rattlesnake Island" of 1872, between Brighton Beach and Seventh Street railroad stations and 39.8 feet northwesterly from track; now marked by 4"x27" sewer pipe set 2 feet in the ground above an undisturbed inverted bottle buried in 1872, and by new 4-legged signal.

"bb" Flagstaff on Brighton Beach Hotel.

"cc" A one-inch pipe 36 inches long driven 32 inches, on sand ridge surrounded by marsh. No near witnesses.

"dd" Station "Beach" of 1897 survey made for Deep-Water Harbor Board, between Brighton Beach and Obispo, 69.8 feet southerly of Salt Lake Railroad track; now marked by 4"x27" sewer pipe set 2 feet in the ground and covered with stone.

## COORDINATES

Of harbor line stations, reference points, and landmarks, being their distances in feet to the nearest tenth of a foot, north or south and east or west from "R", the U. S. C. and G. S. station on Deadmans Island.

(Testimony of David E. Hughes)

| | | | | | |
|---|---|---|---|---|---|
| A | 17013.0 N | 4759.9 E | yy | 770.4 N | 971.7 W |
| B | 15942.6 N | 3245.7 E | zz | 224.8 N | 815.4 W |
| C | 13240.6 N | 350.5 E | aaa | 156.2 S | 807.8 W |
| D | 12400.3 N | 180.1 W | bbb | 408.6 S | 791.8 W |
| E | 9067.1 N | 1888.0 W | ccc | 543.5 S | 741.5 W |
| F | 13156.9 N | 2541.4 W | ddd | 918.8 S | 534.6 W |
| G | 15752.6 N | 2959.7 W | 9 | 2627.3 S | 1065.5 W |
| H | 10704.2 N | 5471.9 E | 14 | 2310.1 S | 64.6 W |
| I | 8126.5 N | 1020.5 E | 15 | 1118.5 S | 442.2 W |
| J | 1524.2 N | 2381.1 W | 16 | 805.7 N | 991.9 W |
| K | 1976.6 S | 3910.4 W | 18 | 3597.6 N | 2339.3 W |
| L | 657.7 S | 4295.8 W | 19 | 5149.5 N | 2523.8 W |
| M | 3598.3 N | 2341.7 W | 20 | 5684.1 N | 2380.7 W |
| N | 6234.6 N | 1225.8 W | 21 | 7068.2 N | 1684.3 W |
| O | 9877.3 N | 769.9 E | 23 | 7715.3 N | 1409.5 W |
| P | 11410.4 N | 1303.2 E | 24 | 7880.0 N | 1575.2 W |
| Q | 2976.6 N | 958.1 W | 25 | 7895.3 N | 1622.8 W |
| R | 0.0 | 0.0 | 27 | 9113.5 N | 1180.1 W |
| S | 7396.8 S | 7135.2 W | 28 | 8849.9 N | 1012.6 W |
| T | 6026.3 S | 7199.4 W | 29 | 8008.2 N | 1282.1 W |
| U | 4634.6 S | 7017.0 W | 30 | 8096.6 N | 1558.3 W |
| V | 1658.1 S | 7251.1 W | 31 | 8094.7 N | 1910.5 W |
| W | 1956.0 S | 3984.6 W | 32 | 8462.1 N | 2454.4 W |
| X | 696.5 S | 4403.5 W | 40 | 10502.3 N | 787.9 W |
| Y | 1489.4 N | 2489.9 W | 49 | 7898.3 N | 1632.3 W |
| Z | 3688.3 N | 4394.3 W | 50 | 7876.8 N | 1922.6 W |

(Testimony of David E. Hughes)

| | | | | | |
|---|---|---|---|---|---|
| a | 3681.0 N | 3300.5 W | 51 | 7987.3 N | 2202.2 W |
| b | 3731.4 N | 3081.2 W | 52 | 8260.7 N | 2567.2 W |
| d | 3973.9 N | 2912.9 W | 53 | 8423.1 N | 2739.9 W |
| e | 4352.0 N | 3435.9 W | 54 | 9274.8 N | 3701.0 W |
| f | 4895.9 N | 4165.6 W | 103 | 6394.4 N | 1460.6 W |
| h | 6523.1 N | 2431.8 W | 104 | 6652.1 N | 1299.7 W |
| i | 7184.7 N | 1955.8 W | 105 | 7469.8 N | 642.9 W |
| j | 9522.4 N | 3775.8 W | 106 | 7742.2 N | 451.7 W |
| k | 12631.7 N | 2679.8 W | 107 | 8782.1 N | 479.5 E |
| l | 12542.7 N | 4990.3 W | 207 | 6276.7 S | 2403.5 W |
| n | 15915.9 N | 2655.5 W | 209 | 5874.5 S | 3342.7 W |
| o | 16028.4 N | 1673.3 W | 211 | 4430.3 S | 2329.9 W |
| p | 15688.5 N | 1901.2 E | 213 | 5629.8 S | 1949.8 W |
| q | 15552.2 N | 2752.1 E | 214 | 4386.3 S | 1077.7 W |
| r | 15496.6 N | 2920.5 E | 215 | 3826.8 S | 685.4 W |
| s | 18035.6 N | 7823.4 E | 217 | 3459.8 S | 382.1 W |
| t | 2097.4 N | 431.2 W | 218 | 3812.1 S | 1896.4 W |
| v | 8476.3 N | 573.2 E | 219 | 3263.4 S | 237.5 E |
| w | 8580.9 N | 472.9 E | 222 | 1978.2 S | 3107.0 W |
| x | 12678.9 N | 81.1 W | 224 | 583.2 S | 3549.1 W |
| y | 10246.9 N | 1009.0 E | 225 | 253.2 S | 3024.2 W |
| z | 7376.8 N | 1409.6 E | 227 | 434.5 S | 3596.2 W |
| aa | 9660.1 N | 3229.8 E | 231 | 94.3 N | 1928.0 W |
| bb | 9917.6 N | 4571.8 E | 233 | 215.1 N | 1546.7 W |
| cc | 11080.0 N | 3947.7 E | 242 | 2506.5 S | 684.2 W |
| dd | 12261.2 N | 10137.8 E | 290 | 1316.5 N | 433.3 W |
| ww | 860.1 N | 1073.4 W | 292 | 1359.9 N | 2724.9 W |
| xx | 808.6 N | 998.4 W | 294 | 2350.4 N | 658.0 W |

| | | | | | |
|---|---|---|---|---|---|
| 296 | 2937.5 N | 1039.2 W | 452 | 9838.5 N. | 853.2 E |
| 298 | 4694.3 N | 266.3 E | 456 | 10907.4 N | 862.4 E |
| 301 | 3502.7 N | 1738.3 W | 460 | 11676.3 N | 651.9 E |
| 302 | 3802.8 N | 1883.1 W | 462 | 12222.3 N | 616.2 E |
| 303 | 5045.5 N | 2034.0 W | 464 | 13128.5 N | 1324.2 E |
| 304 | 5412.1 N | 1935.9 W | 466 | 13578.1 N | 1294.7 E |
| 404 | 10006.7 N | 1998.3 E | 468 | 11961.8 N | 31.9 E |
| 406 | 12309.4 N | 3797.4 E | 470 | 10415.1 N | 133.3 E |
| 408 | 13880.0 N | 7529.5 E | 472 | 10132.2 N | 451.7 W |
| 410 | 14461.4 N | 7139.6 E | 474 | 9854.8 N | 942.8 W |
| 412 | 15762.5 N | 6266.9 E | 476 | 9897.5 N | 981.6 W |
| 414 | 16260.8 N | 5932.7 E | 478 | 10373.0 N | 1413.5 W |
| 416 | 17112.9 N | 5361.2 E | 480 | 10771.0 N | 2257.4 W |
| 418 | 16344.0 N | 4138.2 E | 482 | 10660.1 N | 2768.3 W |
| 420 | 15744.6 N | 4177.5 E | 484 | 9385.8 N | 3460.2 W |
| 422 | | | 486 | 9568.8 N | 3702.2 W |
| 424 | 14416.8 N | 3140.1 E | 488 | 10576.1 N | 3155.3 W |
| 426 | | | 494 | 11098.1 N | 2871.9 W |
| 430 | | | 498 | 11927.1 N | 1959.2 W |
| 434 | 13625.6 N | 2690.8 E | 500 | 14173.9 N | 2106.5 W |
| 438 | 12228.6 N | 2782.4 E | 508 | 14824.3 N | 1926.1 W |
| 442 | 12820.3 N | 3244.7 E | 512 | 14940.4 N | 154.6 W |
| 446 | 11920.2 N | 2872.5 E | 514 | 12652.4 N | 1388.0 W |
| 450 | 9997.0 N | 1038.9 E | 520 | 11445.1 N | 1273.5 W |

[1st indorsement.]

War Department, July 29, 1908.

1. The harbor lines described within and shown on the accompanying map are hereby approved, and they supersede all harbor lines for San Pedro Harbor previously established by the Secretary of War.

2. The systems of lines extending southward from stations 107 and 27 are established in accordance with the provisions of section 11 of the river and harbor act, approved March 3, 1899.

3. The systems of lines for the inner harbor, extending westward from stations 25 and 30, and northward and westward from stations 27 and 107, are established in accordance with the joint resolution of Congress approved March 26, 1908, as follows:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War is hereby authorized to fix and establish pierhead and bulkhead lines, either or both, in the inner harbor of San Pedro, otherwise known as Wilmington Harbor, California, beyond which no piers, wharves, bulkheads or other works shall be extended or deposits made except under such regulations as shall be prescribed from time to time by the Secretary of War."

LUKE E. WRIGHT,
Secretary of War.

[For map attached to foregoing exhibit see page 14 of book of exhibits]

[Endorsed]: No. Q-12-J. City of L A vs Rorax Consol. Plf Exhibit No. 12 Filed 11/10 1933. R. S. Zimmerman, Clerk. By Cross, Deputy Clerk.

There was next offered in evidence a certified copy of the transcript of the record in the United States Supreme Court in an action entitled De Guyer v. Banning, the William Banning named in that action being the grantee named in the patent issued by the United States Government to William Banning in 1881; copy of which is attached to the answer of defendants herein. The case of De Guyer v. Banning was brought by the Dominguez heirs for the purpose of quieting title to Mormon Island and in that action William Banning was a witness for himself and made certain statements under oath at a time when he claimed to be the owner of the land; that plaintiff's offer of proof as to the said statements of the said Banning consisted solely of a part of a certain statement on motion for new trial in the said cause of De Guyer v. Banning, which said statement did not purport to be a verbatim transcript of the testimony of the witness; that said statement on motion for new trial did not bear any approval or authentication by the witness himself, nor was it settled or certified upon or pursuant to any stipulation of the attorneys for the said defendant William Banning. The certified copy of the record was marked Plaintiff's Exhibit No. 13 for identification. A copy of the statement of said William Banning as contained in the certified copy of the record in the case of De Guyer v. Banning is as follows:

"I am the William Banning named in the patent just introduced in evidence; I think that it was in April, 1880 that I entered into possession of that island; I have been in possession of it to the present time, using it as a ship yard; my possession has been exclusive; no claim of any

one else has been made to the possession, except this claim of the plaintiffs which I first knew of a year ago, about the time this suit was brought; this tract of land known as Mormon Island is an island; at about half tide it is an island, and is not an island at low water; at low water it is only partly surrounded by water; at low water it would not be surrounded with water; at mean tide there would be about two feet of water around it; at high tide it is almost all covered with water.

CROSS-EXAMINED.

My possession began by my buying out the party who was then on it; I paid him to get off and then I went on; at the time that I went on I claimed that the title to it was in the government of the United States, and I continued to claim that it was public land of the United States until I obtained the patent for it from the United States, and then I claimed to own it from that time on; a very small portion of the island is above ordinary high water; at mean tide—at mean high tide—I don't think there is an acre above water; the descriptive clause in the patent to me extends to mean low water; I think to include eighteen acres would carry it to mean low water; we occupied a portion of it that was covered with water; I have ship ways there and houses on piles; about an acre is covered in that way; another portion of the island we run lighters on and pile lumber on, when the high tide falls; we use in that way sometimes a couple of acres on the west side, the channel side of the island, and that kind of occupation would cover about three acres."

The defendant objected to the introduction of the certified copy of the record on appeal in the case of De Guyer v. Banning, and in that connection the following occurred:

"MR. ASHBURN: * * * Now, the testimony in question appears to be a part of the statement on motion for new trial, which statement on motion for new trial does not appear to have been O. K.'d or authenticated in any manner by William Banning, but appears to have been signed by the attorneys for the plaintiff and by the judge; that would indicate the bill was settled by the court and the opposing party without the acquiescence of the attorneys for Banning. Apparently that was not acquiesced in by the attorneys for Banning, and even if it be conceded that the attorneys for Banning stipulated to it, it is not competent evidence against Banning, that is, against his successors in interest, of the testimony that Banning gave, for the simple reason that it is not a transcript of the party's testimony, but is a narrative of what the parties concluded to have been the effect of the testimony that he gave.

The second objection to the document is that it is an attempt to prove as against the Borax Company, the successor in interest of Banning, certain declarations that Banning made at a time when the declarations in question did not appear to be opposed to his own interests, because the issue in that case was whether or not the lands fell within the category of lands covered by navigable waters of the bay, and it was apparently to his interest to make the land as low as possible instead of make it as high as it really was. So, the testimony is not fairly an admission against interest. But even if it were held to be an admission against interest, it would not be admissible against the successors in interest for two reasons, as the authorities will clearly establish. First, declarations of a predecessor are not admissible against one who takes without

notice of such declarations having been made. Now, here we buy this land in 1923, and these declarations were made in 1888. There is not and cannot be the slightest proof, and I do not think there will be a suggestion of an offer of proof that the Borax Company had any suspicion at all as to the existence of any such admission, or the fact that any had ever been made."

* * *

"MR. ASHBURN: The next objection is that an admission against interest cannot be received against a successor in interest where the admission is one that goes to the title of the property and has a tendency or a claimed tendency to refute the record of the chain of title, for the reason that one who buys property under our recording laws is entitled to rely upon the chain of title as created by the records in the County Recorder's office. He is not charged as a matter of fact, or as a matter of law, with any knowledge or notice of anything that appears outside that chain of title, and to permit an oral declaration of a predecessor to be received in derogation of your title would be to require you to take title charged with unknown equities or unknown doubts in your title that you could not find out from the most careful examination of the records, and the authorities are all against it. Receiving evidence of this kind as against an innocent purchaser works a distinct wrong because this was all ex parte so far as we are concerned; we did not have any opportunity to be there to protect our rights; we did not know anything about it when we bought the property."

Thereupon the ruling of the court on its admissibility was deferred and the question taken under submission by the court.

(Testimony of Gerald C. Fitzgerald)

GERALD C. FITZGERALD,

being first duly sworn, testified as follows:

That he is a civil engineer and has been such for a period of twenty-five years; that during the time he has been a civil engineer he has been engaged in general civil and hydraulic engineering work; that he commenced his harbor work in the year 1908 at Wilmington and has been engaged in that particular line of endeavor more or less continuously with other general engineering work since the year 1908; that he made a topographic survey of Mormon Island in the year 1909; that he plotted the field notes and the map was made by a draftsman in Mr. Dessery's office; that the map was not made under the supervision of the witness but directly under Mr. Dessery's supervision; that the witness plotted the field notes and the tracing was made from his plotting; that the said map (later received in evidence as Plaintiff's Exhibit 15) purports to represent a certain portion of Mormon Island showing the contours of the elevation of 1, 2, 3, 4.3, 4.8, 5.1, 5.7 and 7.9 feet above the datum plane of mean lower low water; that it also shows certain buildings then located on Mormon Island and levees that were constructed or being constructed at that particular time; they were being constructed around the Island and particularly on the southerly and westerly sides; that after these levees were constructed, the Island was reclaimed and filled; at the time the survey was made these dredges were being constructed by the dredging company and certain hydraulic matter was being pumped in there by dredges, and

(Testimony of Gerald C. Fitzgerald)

it was possible at that time to determine by survey only a portion of the natural island; that some of it had become obliterated by the hydraulic dredging; that the map does not show all of Mormon Island included within the Government patent lines; that he made a map of the portion of the Island surveyed by him; that he made field notes of his survey and stated that they were correct. There was exhibited to the witness a plot sheet which he testified that he had prepared showing the results of this survey and which he testified was correct; which plot sheet was offered and received in evidence, over defendants' objection that no proper foundation had been laid therefor, and marked Plaintiff's Exhibit No. 14. [For copy of Plaintiff's Exhibit No. 14 see page 15 Book of Exhibits.] In this same survey party were Mr. McLaurin, Mr. J. W. Cleland, now an engineer in this city, Mr. Ed Mayer, now with the Engineering Department of the Bureau of Water and Power, and George C. Fitzgerald, now of Camarillo, California. The witness testified that during the making of the said survey he had occasion to determine, as to the portion of the Island that was not obliterated by dredging operations, what areas were covered and uncovered by the ebb and flow of the tide; that there was a slough at the northerly end of the Island which extended in a northeasterly direction through the Island and that he had rowed or assisted in rowing a boat through the slough in the year 1908, and that in order to be able to row a boat through the slough it would be necessary for the tide to be at least three feet above the datum plane of mean lower low water; that there grew upon the portion of the Island

(Testimony of Gerald C. Fitzgerald)

which lies immediately north of the slough salt grass, a salt wort, that is a crinkly grass; that his understanding was that it was salt grass, not wild rice. The witness was then shown a certain map which was later received in evidence as Plaintiff's Exhibit No. 15; that he had compared it with his notes and his original plot sheet and the same was correct with one or two minor exceptions; that the 4.8 contour is not the natural condition; that the field notes show that this contour is covered by the slope of the levee; that it had been constructed with a clam shell dredge, and the wet material had sloughed down over the elevation where the 4.8 contour is shown; in other words, the 4.8 contour is not an actual contour, and also the 4.3 contour line was marked 3.0 at the southerly end, which he stated was an error; that he did not say there were other errors in the map but there is a difference between the "finished map" and the plot sheet; that the 3.0 contour is not shown on Exhibit 15 but it substantially coincides with the heavy line marked "Edge of grass" on the easterly portion of the Island. The witness was then shown a book which he designated as the field book which was a part of the records of Mr. Dessery showing Mormon Island topographical survey made in July, 1909; that that survey was made by the witness and his associates; that pages 29, 30, 31, 32 and 33 of that book are connected with the Mormon Island topographical survey and are the field notes taken by the witness on that survey. The map was offered and received in evidence and marked Plaintiff's Exhibit No. 15. [For copy of Plaintiff's Exhibit No. 15 see page 16 Book of Exhibits.] There was then offered and received in evidence the field notes

(Testimony of Gerald C. Fitzgerald)

of the survey, which were marked Plaintiff's Exhibit No. 16. [For copy of Plaintiff's Exhibit No. 16 see pages 17, 18 and 19 Book of Exhibits.] The witness testified that that portion of the Island lying north of the slough was prior to the reclamation of 1909 lower than that portion of the land shown on Plaintiff's Exhibit No. 5 between the heavy blue lines; that when the tide reached an elevation of five feet that portion of the Island lying immediately north of the slough would be entirely covered with water.

CROSS-EXAMINATION

of

GERALD C. FITZGERALD

That he is a member of the Board of Harbor Commissioners of the plaintiff city, and has been such since July 16, 1930; that he became such member after this suit was begun; that he never did any spirit leveling or accurate leveling to determine any of the heights or elevations mentioned in his direct examination except as to a certain Station P, which is shown in the notes of his survey but the notes do not show what the turning point was on Station P. By that is meant a secondary bench mark or a point that is used in spirit leveling to hold an elevation while you are moving up to another point; that the notes are not clear as to what was the elevation of point P. If you have a 5 foot tide, ordinarily on the shore of the ocean the water would run up very much above the elevation 5.0; in other words, the natural process of the water itself is to be affected by such things as wind, waves, capillary attractions, etc., so that the actual water will run

(Testimony of Gerald C. Fitzgerald)

higher than the exact theoretical elevation of the given contour. That the 4.8 contour line as shown on the map made by the witness is the one which nearly coincides with the heavy blue line designated as the high water mark on Plaintiff's Exhibit No. 5; comparison of the shape of the 4.8 contour on Exhibit 14 shows that it is a different shape from the heavy blue line on Exhibit 5; that it does not coincide exactly but does have points of coincidence; that the 4.8 contour of Exhibit 14 coincides more closely than the 5.1 with the heavy blue line of Exhibit 5. Referring to plaintiff's Exhibit 2 and the outlines of the white parcel surrounded by buff, the 5.1 contour of the witness' map would be inside of that outline in most instances.

"THE COURT: Do I understand it is conceded that the land within the heavy blue line is regularly owned by the defendant?

MR. BUTTS: Yes, your Honor.

(The witness) The 5.1 contour of my plot sheet would lie largely inside the contour surrounding the white parcel on Plaintiff's Exhibit 2; some portions of it might fall outside; and I think some portions of the 4.8 contour would fall outside."

That at the time of starting his survey, the witness was working for Mr. Dessery, who was Engineer for the Board of Trustees of the City of Wilmington; that was shortly before consolidation with the City of Los Angeles, and continued up to that time; a large part of the work of the survey was done in 1908 and consolidation took place in August, 1909; the survey was started after the

(Testimony of Gerald C. Fitzgerald)

former tideland suit on Mormon Island; that in making the survey, levels were transferred from the bench mark on the bridge of the Southern Pacific Railroad track to Mormon Island and that bench mark was established from the one in Wilmington; that in order to get a level to start the Mormon Island survey, an observation was taken across the channel from the railroad to the island,—a distance of approximately 1000 feet; that the level thus obtained was carried around the island or an attempt was made to do so; that the line of levels closed within .06 of a foot and no better; that the closing of a line of levels shows that the same level has been carried through; that the witness did not, after going around the Island, carry the line of levels back to the bench mark where he started; that so far as can be ascertained from the notes, there is but a single shot in one direction to tie the Mormon Island levels into the bench mark, and the notes do not disclose any back shot to see how much, if any, error had crept into the leveling across this 1000 foot distance, and that the level work done upon the Island for the purpose of locating and establishing the various contours was done by means of spirit leveling, and that he checked his levels as determined by him with levels which were determined by a party by the name of Colonel Hueur, who was also making a survey on Mormon Island at that time, and the two sets of levels checked within a few hundredths; that page 30 of his field notes shows that at the northerly end of the Island where the 4.8 contour and the 5.1 contour are shown, edge of grass runs all around that higher land; that the edge of grass was very close to the 3 foot contour; that in most instances edge of grass was inside the

(Testimony of Gerald C. Fitzgerald)

3 foot contour; that this would mean that edge of grass was higher than 3 feet; that the plot sheet, Exhibit 14, likewise shows edge of grass inside the 3 foot contour but the other document, Exhibit 15, made under Mr. Dessery's specific directions, departs in that respect and the 3 foot contour was omitted from that map, which merely shows the edge of grass outside the 4.3 contour and the next contour shown is the 2 foot one, no 3 foot contour being shown there at all; from that map the best that can be said is that edge of grass is somewhere between 2 feet and 4.3 feet, while on the witness' plot sheet it is apparent that the edge of grass is somewhere between 3.0 and 4.3 feet. The map as made by the witness shows the edge of grass in and around Mormon Island and that the elevation of the edge of grass was slightly above three feet above the datum plane of mean lower low water; that the word "mud" which appears twice on the northwesterly portion of the Island on Exhibit 14 does not appear in the field notes, all of which were made by the witness. That is merely an interpretation injected by him when doing the plotting. The word "water" which appears immediately below the word "mud" is both in the notes and on the plot sheet. There was water standing there at that time, which might have been water from the dredging operations. That the survey of Mormon Island occupied a period of three days and that during the time the survey was being made a levee was being constructed along the westerly and southeasterly side of the Island; which had been thrown up all along the west side of the island and around the south end and a part of the way on the east side, but on that side it was not confined to

(Testimony of Gerald C. Fitzgerald)

the line of the Island but went in a more easterly direction following the harbor lines; that a portion of the levee was being constructed by a clam shell dredger and other portions were being constructed by hand and the dredged materials were being deposited on a portion of the Island and some of the original surface of the Island had been obliterated by having dredged materials deposited upon it, and in those places it was impossible to locate the elevation of the original surface of the soil; that at the time this survey was started, the dredger was in the channel near the southeast portion of the Island; that was a very shallow channel at that point; that was a suction dredger; the survey work was done rapidly; each hour more dredging material was being placed on the Island and to that extent the field for operations was partially obscured. Some of the contours on the northerly end of the Island had already been affected by the combined operation of the water and the levee. On page 30 of the notes there is a hiatus in the contour which represents about 120 feet, but the levee itself is shown on the map as a continuous thing at that place, no 120 foot break or any other break being shown thereon. The said break or hiatus was thereupon marked by the witness with the letters "A" and "B". He further stated that it did not represent a spillway but was just a hiatus in the field notes and that a straight line was drawn through it when the map was plotted.

"Q BY MR. ASHBURN: Did you do that frequently in this survey or is that the only place that you know of where the notes just skipped 120 feet?

A I had not noticed that before, Mr. Ashburn."

(Testimony of Gerald C. Fitzgerald)

That the method used by the witness in establishing the contours was to establish a base line where stakes were set up every one hundred feet and then cross section to the right and left of that base line at right angles, taking measurements of the various contours as they were intersected; the sketches of contours, as found on page 30 of the notes, were not drawn exactly to scale; they were sketched in on the ground without depending on the scale. Referring, for instance, to the 5.1 contour, that would be an interpolation drawn in between every 100 foot observation.

"THE COURT: Mr. Ashburn, state in a general way what you expect to develop from your cross-examination.

MR. ASHBURN: I expect to develop that the notes are incorrect or, rather, that the notes are conflicting and that the maps built upon them are incorrect.

THE COURT: I decline further cross-examination of this particular detail that we are now upon. I do not think that cross-examination at such length is necessary. The general character of the work has been, I think, fully explained by the witness. Now take up some other subject.

MR. ASHBURN: I offer to show by the witness that on page 31 of the notes there are two 4.3 contours on the left-hand side of the page, only one of which is shown on either of the maps which have been produced.

THE COURT: You mean two different 4.3 contours?

MR. ASHBURN: Yes, sir, and only one of which has been shown on either of the maps.

THE COURT: Is that correct?

(Testimony of Gerald C. Fitzgerald)

A It is shown, your Honor, but the inner one has been scratched out with a pencil mark made over it, so, apparently, there was some mistake.

THE COURT: All right.

Q BY MR. ASHBURN: In the field notes themselves?

A Yes, sir.

THE COURT: That is enough along that line."

The slough, as shown on Exhibit 14, ends east of the levee and there is shown in it a 3 foot contour and above that "edge of grass" and those lines do not extend up to the levee. That indicates line of grass to be something higher than 3 feet. No little banks or step-offs are shown there at all and the witness would have to get something above three feet, according to his datum plane, before it would go to the west of that contour that is indicated as the end of the slough. The slough did pass through the levee but the map showed a closed contour. The contour which shows edge of grass as a continuous line across the end of the slough is incorrect. The notes are not clear in that respect. I would not say they are incorrect. The slough actually did end against the levee but the natural slough passed under the levee before it was constructed. Scaling the notes it appears that the interval between the levee and the end of the slough is approximately fifteen feet; that that is the slough through which he had said he had traveled in a boat. That part of the levee was twelve feet high and part of it lower but it averaged about eight feet in height. The field notes do not show any observation of heights of tide made

(Testimony of Harrison R. McLaurin)

during the work, which was done at all stages of the tide. That the reason that the slough was not extended through from the easterly side of the Island to the westerly side on his map was for the reason that it was blocked off by the levee; that prior to the construction of the levee along the westerly side of the Island the slough extended from the westerly to the easterly side of the Island. The ruling admitting plaintiff's Exhibits Nos. 14 and 15 in evidence was made at this stage of the proceeding and both of said exhibits were received over the objection of respondent that no foundation had been laid therefor.

HARRISON R. McLAURIN,

being first duly sworn, testified as follows:

That he was a civil engineer; that he had worked at engineering work for a period of fifteen years in Canada, Mexico and Southern California and had done engineering work around the inner harbor of San Pedro in the years 1908 and 1909; that at that time he was employed by Mr. Dessery and during that time he worked with Gerald C. Fitzgerald; that Mr. Dessery was the City Engineer of Wilmington and other cities in Southern California and that he assisted in making the survey of Mormon Island as made by Gerald C. Fitzgerald in July, 1909; that in making the survey he operated the level instrument, a Wye level, standard make; that he was familiar with Mormon Island before the dredging in 1909 and 1910 and that prior to that a slough existed in the northerly portion of the Island which extended from the westerly to the easterly side; that he had rowed and

pushed a boat through the slough; that the portion of the Island lying immediately north of the slough was lower than that portion immediately south of the slough; that he had seen the Island on numerous occasions when it was in a state of nature and that he had seen that portion of the Island which lies immediately north of the slough entirely covered with water on many occasions; that when it was covered with water the tide would be at approximately five feet elevation; that the vegetation which grew on that portion of the Island north of the slough was on the lower portion, what we called ice plant, a short greenish pulpy stuff; it grew all over the land that was generally covered and uncovered by the tides, and there was some long rough bladed grass growing down nearer the water which was probably two feet high.

## CROSS-EXAMINATION OF HARRISON R. McLAURIN

That the vegetation on that portion of the Island lying north of the slough was not as high as a man's waist and it was not as high as his shoulders.

## EUGENE W. MERWIN,

being first duly sworn, testified as follows:

That he is a civil engineer employed by the City of Los Angeles; that from 1909 to 1924 he was employed by the Harbor Department of said City of Los Angeles; that his duties consisted primarily of making necessary maps of the harbor and directing surveys for them and afterwards making improvement plans and carrying them out, drafting contracts, carrying out the contracts and directing

(Testimony of Eugene W. Merwin)

the forces which were doing the work; that the reclamation of Mormon Island was under way when he first became connected with the Harbor Department; that within the last three years he made approximately thirty excavations on Mormon Island in that area lying immediately south of the land involved in this action, being the parcel now under lease to the Shell Oil Company, the parcel which the City purchased from Hancock Banning; that the excavations were made for the purpose of locating the original surface of the soil; that the excavations were made in 1931 and in 1933 and that he found a layer of sand, broken shells and clay either in the form of finely divided clay or in some cases in balls of clay; and then down below would frequently occur a thinner clay enmeshed or mixed with remains of vegetation; under that slight, thin layer of clay will be found roots of vegetation; and from time to time also there were found other things like paint cans, sawdust and other materials, which could be expected to be found on the shores of the bay; that he located stems of the rice grass quite well defined, particularly where there had been a little layer of clay surrounding the tops; the salt wort is a little hard to define but the holes were found where the inner core of the salt wort would be pulled out as the specimen was pulled apart; that the elevation of what he considered to be the original surface of the soil was determined by transferring levels from the bench mark situated near the Southern Pacific depot in Wilmington, the elevation of which was 9.37 feet above the datum plane of mean lower low water; that the elevation of what he considered to be the original surface of the soil in the excava-

tions where the same was located were as follows: Test Hole No. 1, no original surface was found; Test Hole No. 10, elevation 4; No. 11, no original surface; No. 12, elevation 3.8; No. 13, elevation 4.6 but identification was questionable; No. 14, there was no indication of old surface; No. 15, there was no indication of old surface; No. 16, elevation 5.2; No. 17, elevation 5.5; No. 18, elevation 5.2; No. 19, was not conclusive; No. 20, elevation 5.0; elevation of No. 21 not well defined; No. 22, elevation 4.7; No. 102, elevation 4.1; No. 103, elevation 4.1; No. 104, elevation 3.7; No. 105, elevation 4.7; No 105A, 4.6; No. 106, elevation 4.1, No. 107, elevation 4.8; No. 108, elevation 4.0; No. 108A, elevation 2.7; No. 108B, elevation 3.6; No. 109, elevation 4.6; No. 110, elevation 4.7; No. 111, elevation 4.8; Nos. 112, 113 and 114 were uncertain. The witness also made a diagram showing the locations on the ground where the holes were excavated, which map was offered and received in evidence and marked Plaintiff's Exhibit No. 17.

## CROSS-EXAMINATION OF EUGENE W. MERWIN

That he meant on direct examination that the elevation 9.37 was that of the bench mark as last examined by him, but that he had heard that certain of the recent earthquakes or possibly a movement before that had made some change in that bench; that the elevation given is with reference to the datum plane fixed according to a bench mark 10.07; that what I conceive to be the original surface of the soil had been covered to a depth of between four and six feet, making an overburden of that thickness which

(Testimony of Eugene W. Merwin)

consists of dredged material, and the present elevation is several feet above mean high tide, whether one takes the figure of 5.1 or the figure 4.7; that in two of the test holes, numbers 102 and 103, he had located sawdust and the sawdust was approximately one foot below the present surface of the soil; that he could not vouch for the accuracy of the identification of the vegetation which he located or what he determined to be the original surface of the soil; that that portion of the Island where the excavations were made is under lease to the Shell Oil Company and is occupied by tanks which contain petroleum products, which tanks had been on there a number of years before these trenches were sunk; they are about 20 feet high and with the gasoline in them would weigh a little over a ton a square foot; there is also a group of four buildings on the parcel of land; that the improvement of that parcel was begun in 1922 or 1923 and the tanks have been in use there ever since; that there is a channel immediately on the west and on the east of the Island, each of which channels is approximately six hundred feet wide and thirty-five feet deep and the dredging of the channels began in 1909; that as a result of the dredging, two benefits were conferred—by one operation the dredging of the channels, on the one hand, and the filling of the land on the other; that the dredging of 1909 was done in order to enable the closing of the then existing channel at the north end of what we now call Mormon Island Peninsula. It was done to comply with orders of the War Department. The City of Los Angeles dredged the balance of slip No. 1, which is the channel west of Mormon Island.

(Testimony of Carrol M. Wakeman)

CARROL M. WAKEMAN,

being first duly sworn, testified as follows:

That he was the testing engineer employed by the City of Los Angeles and in the Harbor Department of said City; that he performed chemical work; that he was present at the time the excavations were made on the Island, as testified to by Mr. Merwin, but that his data relates entirely to borings and examinations of June 1 and 2, 1933, and that he examined the soil after the trenches were made for the purpose of determining what they are pleased to call the original surface of the soil and he determined the same and took photographs of some of the holes; that the so-called original surface of the soil was determined by the presence of plants and plant life requiring oxygen with which to grow, by the presence of their roots in one stratum and the presence of their stems in another stratum with a definite parting line in between; that in addition the character of the soil below that line was entirely different to the eye and the bottom part contained mold or organic material, the top part contained little or no organic material, and the particles showing relatively coarser in regard to the size than the particles in the soil below that line; that he made a chemical analysis of the soil, both of the soil found below the line, which he determined to be the original surface, and that above the line, and from such analysis he determined that the two were different. The witness was shown a photograph of a section taken from the soil augur which was taken from Test Hole No. 107,

(Testimony of Carrol M. Wakeman)

and he testified that the photograph showed a plant in place exactly as it was before the top part of the soil above the plant was removed, allowing the plant to remain in its original position with respect to the soil line, and the roots of the plant remained hidden in the part underneath what he determined to be the original surface of the soil. The photograph was offered and received in evidence and marked Plaintiff's Exhibit No. 18.

## CROSS-EXAMINATION OF CARROL M. WAKEMAN

Immediately before the fracture line the soil consisted of clay containing organic matter varying in thickness from half to three-fourth of an inch; under this was a sandy formation containing less clay; that he is not a botanist and not qualified to define the plant life which was found; that he could not name the different grasses or plants. The witness testified that sawdust was located in Test Holes Nos. 102 and 103 and was located between nine and ten inches from the present ground line from the top down, and below the sawdust down to what we call the original surface was conglommerate consisting of sand and shells such as could be expected to be found where dredge materials had been placed. The only chemical tests made by the witness were those necessary for a comparison of one soil with another, but no testing of plant life was done.

There was next offered and received in evidence certified copies of tide records of the United States Coast & Geodetic Survey from 1853 to 1927, and marked Plaintiff's Exhibit No. 19.

(Testimony of Carrol M. Wakeman)

[EXHIBIT NO. 19]

Address the Director
U. S. Coast and Geodetic Survey
and refer to No. 30-MDS

DEPARTMENT OF COMMERCE
U. S. Coast and Geodetic Survey
Washington

August 11, 1933.

Captain James T. Watson,
Deputy City Attorney,
City Hall,
Los Angeles, Calif.

Dear Sir:

There is enclosed for your information a certified copy of a revised summary of tidal constants for San Pedro, California, to supersede those furnished you under date of November 19, 1930. There is also enclosed a copy of a memorandum from the Chief of the Division of Tides and Currents and approved by me, setting forth the reasons for revising the values obtained from the older series.

Very truly yours,

R. S. Patton,

Director.

Enclosure
30-MDS

(Testimony of Carrol M. Wakeman)

August 10, 1933.

To: The Director.
From: Chief, Division of Tides and Currents.
Subject: Tides, San Pedro Harbor.

After a careful and thorough investigation of all the tidal records of San Pedro Harbor available at the present time, definite conclusions have been reached as to the constants derived from the various series.

It is recommended that "Tides—Summary—1, 2 and 3" (Form 415) for San Pedro, California, be canceled. It has been found from a searching inquiry into the old records that certain values contained thereon are derived from unreliable observational data or from assumptions which now are seen to be not valid.

In its place it is recommended the acceptance of "Tides —Summary—Sheet I and Sheet II" (Form 415), on which are given the values based upon all available data as observed by the Coast and Geodetic Survey and considered reliable.

The earliest series from which constants can be derived was that of 1853-54. Unfortunately when this series was worked up in 1911, undue weight was given to a statement of the observer with regard to the float well clogging during a portion of the record by increasing the range for the series by 10 percent. This clogging appears to have occurred in the first month of the series and the constants from this month have been rejected. It is true that the intake was undoubtedly smaller than recommended in present day practice, but there appears to be no justification of the 10 percent increase in the range for the entire series. A mean of the second, third and

fourth months therefore have been taken as the constants from this series.

There appear to be no tides observed after March 10, 1854 until May 27, 1859, when a series of 33 high and 32 low waters were taken. This series was not included in the previous summary. It has been compared with simultaneous observations at San Diego and appears to be satisfactory.

From the close of that series there are no further Coast Survey observations until September 11, 1878. There appears to be contradicting evidence that the Army Engineers started a series in October 1873, 1874, or 1878, but none of the observations are on file at the office. Letters and bench mark information are so at variance as to this series that communication with the Army Engineers is needed to clear this up, and this perhaps will lead nowhere, as letters from members of that organization on file are contradictory as to the details.

The 1878 series by the Coast Survey were staff readings at and near high and low waters. The constants from this series led to the suspicion that something was wrong with the observations. The mean range was not only larger than any series before or since, but the smaller high and low water inequalities, if true, gave a different type of tide for that place. From the mean range and the inequalities, a mean great diurnal range was derived comparable with the same range from the other series which lead to the thought that the lower highs and higher lows were not recorded correctly.

A prediction of the tide for that time based upon the present day series at Los Angeles Outer Harbor was

made, and upon the predicted curve there was plotted the high and low waters as observed during September and October 1878. It was the obvious that practically all the night readings of the observer were falsified. It is a peculiarity of the tide in this area to go frequently diurnal for a day or two when the moon is at its maximum semi-monthly declination. The high and low water values show at these times without doubt that they are purely imaginery. The higher high and lower low waters come generally during the daytime or early evening; and the predictions in most cases agreed very nicely with these entries. The smaller ranges therefore being in most cases increased over what they were, gave an increased mean range and decreased inequalities. That this series should be rejected is apparent, and it is so recommended.

Besides a series of only two highs and two lows in 1887, the next group of observations lies between December 17, 1896 and February 27, 1897. These are staff readings, and a weighted mean of the series, after a revised comparison with Sausalito, using mean values for that time, gives a value based upon 81 high waters and 81 low waters.

In 1920 automatic gage readings were obtained covering 224 highs and 224 lows, and in 1921 a short series of 11 highs and 9 lows were obtained. Both these groups have been compared with San Diego and appear to be satisfactory.

This brings us up to a continuous series of 9 years from 1924 to the present time with accepted values as shown on the Summary Sheet.

(Testimony of Carrol M. Wakeman)

The following listing gives in sequence the values of the mean ranges obtained from the different series:

| | |
|---|---|
| 1853-54 | 3.67 feet |
| 1859 | 3.75 feet |
| 1896-7 | 3.79 feet |
| 1920-21 | 3.82 feet |
| 1921 | 3.82 feet |
| 1924-32 | 3.76 feet |

Bench Mark Connections.

A thorough search of the files shows that all the bench marks established in connection with the earlier series were destroyed prior to the time of the beginning of the 1920 observations, so that no connections between those bench marks and the existing bench marks are possible.

The earlier bench marks established were wholly in connection with hydrographic surveys, in which at that time the long-continued existence of the bench mark was considered of no moment.

It is only in more recent years that permanent bench marks became necessary. Our present series are thoroughly protected by adequate bench marks.

Paul C. Whitney
Chief, Division of Tides and Currents

APPROVED
(Signed) R. S. PATTON.
Director.

[For Tide Sheets attached to the foregoing report see pages 20, 21, 22 and 23 Book of Exhibits]

No. Q-12-J. City of L A vs. Borax Consol. Plf Exhibit No. 19 Filed 11/14 1933 R. S. Zimmerman, Clerk. By Cross Deputy Clerk

(Testimony of Harry Leypoldt)

HARRY LEYPOLDT,

being first duly sworn, testified as follows:

That he was an engineer in the employ of the Los Angeles Harbor Department since 1923, formerly employed by the United States Coast & Geodetic Survey in making field surveys for that department, and that he had made a study of the tides in and around Los Angeles Harbor since 1923 in a general way, but intensively since 1929, and also of the type and elevation of the tides in and around Mormon Island; that the Harbor Department maintains one tide gauge of its own and two others for the Coast and Geodetic Survey; that he has the general overseeing of the tabulation of the work of the gauges, the records of them; that on the Pacific Coast tides differed from those on the Atlantic Coast in that the two high tides of each lunar day were much different in elevation; the average difference between two high waters is approximately two and a half feet and the average difference in low waters is about three feet; the datum plane used by the United States Coast & Geodetic Survey on the Pacific Coast is mean lower low water.

"Q. What is the elevation of mean high tide in and around Mormon Island in Los Angeles Harbor?

MR. ASHBURN: To which we object on the ground, first, that it is an effort to impeach by parol the Norway survey and, secondly, that it is an effort, contrary to the long line of decisions, to inject the mean high tide line as the legal boundary, when the most that could possibly be claimed under the decisions is that the line of the

(Testimony of Harry Leypoldt)

neaps constitutes the boundary and this mean high tide line is immaterial; and on the further ground that no proper foundation has been laid for the question in that it is directed to present-day values and not to the values or the datum planes as they existed at the time of the Norway survey or at the time of the admission of the state into the Union.

A 5.1 feet above mean lower low water."

Which includes every high tide that is high; that the mean elevation of all the higher highs is 5.8 feet above the same datum plane.

Plaintiff then offered and there was received in evidence a map entitled "U. S. Coast Survey, A. D. Bache, Superintendent, Section 10, Map of part of coast of California from Point Fermin eastward to San Gabriel River, 1859, scale 1 to 10,000," which map was marked Plaintiff's Exhibit No. 20, said map being a topographic map and Mormon Island was shown thereon, and according to the witness the symbols used by the United States Coast & Geodetic Survey the whole of Mormon Island was shown as marsh land, but that the symbol to which the witness referred is not the present symbol for marsh land.

[For copy of Plaintiff's Exhibit No. 20 see page 24 Book of Exhibits.]

"Q I believe you testified that you are familiar with the symbols used by the United States Coast and Geodetic Survey?

A Yes, sir.

Q And you have located Mormon Island on the map, have you?

(Testimony of Harry Leypoldt)

A Yes, sir.

Q Have you noticed the symbols on that map?

A Yes, sir.

Q What does that indicate?

A It is not the present symbol for marsh land, but from comparison with areas that I know is marsh land, and so shown on this chart, Mormon Island is shown as marsh land.

MR. ASHBURN: Move to strike the answer as not responsive, and argumentative, and irrelevant and a conclusion of the witness.

THE COURT: Well, he says it is not marked by the symbols used now, but he says, or gives me the impression that it is intended at that time to indicate marsh land; is that correct?

A Yes, sir.

MR. ASHBURN: He argued that from other portions of the map.

A That has the same symbol.

THE COURT: Let the answer stand."

There was then offered and received in evidence a map entitled, "U. S. Coast Survey; A. D. Bache, superintendent, Hydrography of San Pedro Harbor and approaches, California, by the party under the command of James Alden, Comr. U. S. N. Asst. U. S. C. S. 1859," which map was marked Plaintiff's Exhibit No. 21.

[For copy of Plaintiff's Exhibit No. 21 see page 2. Book of Exhibits.]

Exhibit 20 is a plane table map showing the topography, while Exhibit 21 shows the hydrography.

(Testimony of Harry Leypoldt)

There was then offered and received in evidence a certified copy of the field notes of the hydrographic survey as made by A. D. Bache in 1859, and marked Plaintiff's Exhibit No. 22.

## CROSS-EXAMINATION OF HARRY LEYPOLDT

That he did not know what the symbol used by the Coast & Geodetic Survey actually meant except from reasoning from other portions of the map; that the outlines of Mormon Island as shown on the hydrographic sheet are copied from the topographic sheet or the plane table survey; that in making such a survey the surveyor goes on the land, sets up a table and delineates right there what he sees in front of him, while a survey such as Exhibit 5 is interpolated between the respective observation points and the interpolation is made after the survey is completed, but the latter type of survey is more accurate; that the lines drawn on Exhibit 20 were the lines which the surveyor drew on the ground in 1859, sketched on the ground; in the type of survey represented by Exhibit 5, the interpolations are made in the office after the survey is finished; that he had never determined the elevation of the mean of neap tides for the reason that he had never been interested in neap tides; that the mean of the neap tides would be approximately 4 feet, but he is not able to state whether it would be 4.3 feet above the datum plane of mean lower low water; that the reason he did not make a study of the neap tides was for the reason that they only occur twice a month; that he had been working especially on the tides of this Coast since 1929;

(Testimony of Harry Leypoldt)

that he did know that the contention of the defendants herein would be that the line of the mean of the neap tides is the boundary line if the court accepts one of these fictitious planes as boundary line; that for 4 years with that knowledge he never took the trouble to figure out the elevation of the mean of the neap tides; that he learned of defendants' contention within the last 6 months or a year; that he got his figure 5.1 from the tide gauge which records the actual height of the tides; that he studied all the tide records of the gauge which the City maintains by and for itself, as well as the two gauges which it maintains in conjunction with the Coast & Geodetic Survey; that he has not depended at all upon figures published from time to time by the Coast & Geodetic Survey but has based his statement of 5.1 elevation solely upon his own findings deduced from the records of the gauges; that he knows that the elevation of the mean high tide as established by the Coast & Geodetic Survey as of this date for Los Angeles Harbor at the same place where he found his 5.1 is 4.7 feet above mean lower low water; that that Department establishes its mean high tide from a fictitious curve drawn upon the tide curve and the fictitious curve is not the one which shows the actual height above the ground; that the Coast Survey has two year values and he has from 1912 to 1933; that the longer series gives the more accurate values; that the Coast & Geodetic Survey is wrong and the witness is right; that the fictitious curve used by the Coast & Geodetic is a curve which is taken from the tide gauges maintained jointly by the Coast & Geodetic and the City of Los Angeles, and the readings of those gauges are

actually copied by an employee of the City of Los Angeles and the curve drawn by said city employee and the curve furnished by the City to the Coast & Geodetic; that the City employees are therein following the instructions of the Coast & Geodetic; that the curve so furnished to it is the actual curve that is prepared by the City of Los Angeles; that the curve which is furnished is one prepared in accordance with the instructions of the Coast & Geodetic Survey but they do not call it a fictitious curve; that the only basis for the use of the word "fictitious" is the fact that the witness disagrees with the Coast & Geodetic Survey as to how these tide curves should be drawn. The Coast Survey is interested in the high water mark or the high tide with relation to the coast so that they can compare other stations to this. Los Angeles and the local vicinity has a peculiar tide that is not met with in many places and in order to make their values conform with the Coast Survey work elsewhere, they take what the witness would call the result of the astronomic agents in producing the tide curve; that is done by the City at the request of the Coast Survey. There is an influence in Los Angeles Harbor that is independent of the astronomic influence; that is, the meterological condition that is prevalent there and it is prevalent only in this local vicinity. If you want to compare Los Angeles with San Francisco or elsewhere, you must leave out that particular value to obtain your theoretical high water or astronomical high water. The thing mentioned by him which is not of tidal origin is known as seiche, which is a continuous and often repeated

(Testimony of Harry Leypoldt)

phenomenon like the tides themselves; that the Coast & Geodetic is not interested in fixing property boundary lines. Its work is done independently of the effect which it may have upon any given lawsuit; while, on the other hand, the City of Los Angeles and the witness, as its representative, have been engaged ever since 1929 in treating and reading these tides with reference to this particular boundary line that is boundary line that is now in litigation. The witness was then shown a graph entitled "Boston, Massachusetts, Commonwealth Pier No. 5, June 4, 1933, scale 1/2" and identified it as illustrating the reading of an automatic tide gauge such as the City of Los Angeles maintains; that at one point designated "6", sawteeth appear which represent the recordation of the intermittent seiche which occurs at Boston; that seiche is the oscillation of the water, different bodies oscillating with different periods, and that his studies have shown that from the outer reaches of the Coast of Southern California, from there into shore, oscillates with a period all its own. The term "seiche" arises through the oscillation of that body of water. Referring again to the graph, at points designated "12" and "14", the sawteeth are much larger than at "6" but they are also seiche indications. The same is true between points designated "16" and "17" and the line that is drawn through these sawteeth or seiche is the kind of curve that the Coast & Geodetic draws and uses, and the witness claims that the curve should be drawn along the tops of these sawteeth where the seiche is continuous as in Los Angeles and if those were Los Angeles tides the difference between him and the Coast & Geodetic would be that he would

(Testimony of Harry Leypoldt)

want to draw the line across the top of those sawteeth and they would want to draw it through the middle; that for the purpose of ascertaining where the water comes up on the land, you must draw it through the top for the water stands there for 10 minutes every hour; that he does not know that the Coast & Geodetic has ever drawn this curve any differently from what it is doing today, nor does he know that the Coast & Geodetic uses any other method of drawing tidal curve anywhere; that he does not recall whether during the 8 years that he was with the Coast & Geodetic it adopted this same method now pursued of drawing the curve through the center of the seiche sawteeth; that he never had any experience with seiches except in the Philippines and that was in 1916; that he does concede the work of the Coast & Geodetic Survey to be authoritative in the matter of tides so far as it goes; that for a century or more the Coast & Geodetic has made a special study of tides and of tidal predictions and of the records of tides which had already occurred; that it has got the matter of tidal predictions down to such a point that it can take a machine and predict the tides on that machine for 10, 20, 30 or 50 years hence if they know the harmonic constants for the port in question; that it requires a long series of tidal observations to obtain such constants; that it is true that people generally, engineers, mariners and others who have to do with tides, look to the Coast & Geodetic to determine or to furnish the information which they desire in connection with their respective businesses, and that the Coast & Geodetic has made such a careful study of the subject of these tidal phenomena and of tidal ranges and of tidal datum

(Testimony of Harry Leypoldt)

planes, that the Government has published from time to time treatises prepared in the Coast & Geodetic on those subjects, such, for instance, as special publication No. 135 entitled "Tidal Datum Planes"; that that is a recognized work throughout the country and one that is considered authoritative in its line; that the Coast & Geodetic publishes from time to time information as to the heights of various datum planes above the accepted base, such for instance as mean sea level, mean high water, mean higher high water, and they do that all the time, and those publications are sent throughout the land and are generally looked upon, treated and acted upon as correct.

"THE COURT: It is generally to this effect: Does anybody else hold the same view that you do, meaning by 'you' the City of Los Angeles, with respect to the inaccuracy of the method pursued by the Coast & Geodetic? Is that about it?

MR. ASHBURN: Yes.

A This is such a rare phenomenon it is just a special case, and they don't include it.

THE COURT: To your knowledge do you know of anybody—

A No, sir."

That he does not know anything about bench mark 10.07, that it was before his time; that the bench mark to which his elevations referred is the 9.37 bench mark in Wilmington which is a geologic bench mark; that he does not know whether it refers to the same datum plane of mean lower low water to which all of the series of bench marks up and down the harbor refer; that he does not know whether 9.37 is tide into that series or not.

(Testimony of Harry Leypoldt)

## REDIRECT EXAMINATION OF HARRY LEYPOLDT

The witness was then shown certain photostatic copies which he identified as enlargements of tide records from the Inner Harbor gauge of the Coast & Geodetic Survey for February 21, 1933, and testified that the irregular lines represents the true tide; that such irregularity is the result of the seiche; that the smooth line running through the center of the irregularities represents the line which the City puts in under instructions from the Coast & Geodetic Survey; that the arrangement is that the Survey furnishes the tide gauge and the City furnishes the reader and the records and the Coast & Geodetic has given instructions as to the manner of showing the tides on those records.

"Q Now, by taking this smooth curve, which is intended to draw it through the center of this irregular shaped line, as near as you can do it?

A Yes, sir, strike a mean.

Q Strike a mean between the low and high points of the seiche?

A Yes, sir.

Q Now, if you use that smooth curve line of the mean tide, you will get an elevation of what?

A Slightly less than two-tenths below the elevation I testified to.

Q What did you testify to?

A I testified 5.8 and 5.1; that would make it about 4.9 and 4.7.

(Testimony of Harry Leypoldt)

Q Now, if you used the top of the seiche as the line, you would obtain your deviation of 5.1 and 5.8, isn't that right?

A Yes, sir.

Q And this seiche does represent the point, that is to say, it would represent the point reached by the water on the ground?

A Yes, sir, if you observe it on the ground that is the water that makes the mark. That is the one we see."

That Captain Whitney, who is now Chief of the Tidal Division of the Coast & Geodetic Survey, gave him instructions as to method of drawing the line in question; that in practically all harbors on the Pacific Coast seiche does not exist, except in Los Angeles, a little in Santa Monica and a little in Newport Harbor. On this graph the variation from the smooth curve represents the seiche. In a place where no seiche exists, it would not be necessary to draw the smooth curve for the tide curve would then be smooth. The witness was then shown a photostat which he identified as a record of the outer harbor gauge located at the outer end of Municipal Pier No. 1 and Berth 60 about 2½ or 3 miles from Mormon Island. He stated that the other records were taken on what he understands to be the Mormon Island peninsula within two or three hundred feet from the land involved in this action.

Counsel for plaintiff then offered in evidence a document which he identified as a certified copy of the United States Coast & Geodetic chart made in the year 1852, which map was offered and received in evidence and marked Plaintiff's Exhibit No. 23.

(Testimony of Harry Leypoldt)

[For copy of Plaintiff's Exhibit No. 23 see page 26 Book of Exhibits.]

RECROSS-EXAMINATION

OF HARRY LEYPOLDT

The witness testified that Captain Whitney told him in substance that the Coast & Geodetic wanted him to take the mean of the tides as shown. That was in 1929 and 1930; that the Captain wanted something he could use for his purposes; that this line is the mean of the actual curve and that is what he said he wanted; that by taking a mean with respect to the seiche, you average out what is above the mean line and what is below the mean line, and cancel the one by the other. It is the smooth line that averages out the irregularities above and below it. Referring to the photostat dated February 9th between the hours of 11:30 and 12:30, there is practically no variation from the smooth line because at that particular time there was not very much seiche: The line that represents the mean of the seiches is the one that the Coast & Geodetic uses as the basis of its computation from which it derived its 4.7 for mean high water and the witness' 5.1 was derived from his computation which reads to the tops on high water and the bottoms on low water and that he calls mean high tide and the elevation 5.1, and the witness said that he had thereby imposed four-tenths additional elevation upon the mean line which corresponds with the mean of the astronomic tides.

There was next offered and received in evidence certified copies of the reports of the Army Engineer for the Southern District of California for the years 1902 to 1907, inclusive, which were marked Plaintiff's Exhibit No. 24; that said documents were received in evidence after the following colloquy and objection:

"MR. ASHBURN: You are offering them as a whole, I take it?

MR. BUTTS: Yes.

Mr. ASHBURN: We are not objecting to the authentication of the documents, but we are objecting to the offer upon the ground that the assertion of the engineers or anybody else, to the effect that 5.1 was the mean of the high tides, would not be competent evidence, and on the further ground that we are not concerned in this case with the mean of the high tides, but on the contrary as to the mean of the neaps, and also on the further ground it is too remote in point of time, and is an effort to impeach by parol, the Norway survey."

[EXHIBIT NO. 24]

ANNUAL REPORT

upon the

Improvement of Rivers and Harbors in California South of San Francisco Bay

in the charge of

Thos. H. Handbury,
Lieut. Col., Corps of Engineers, U. S. A.,
Chas. E. L. B. Davis,
Lieut. Col., Corps of Engineers, U. S. A.,
James J. Meyler,
Captain, Corps of Engineers, U. S. A.,
and
Edgar Jadwin,
Captain, Corps of Engineers, U. S. A.,

being

APPENDIX S S

of the

Annual Report of the Chief of Engineers for 1902.

WASHINGTON:
Government Printing Office.
1902.

[Extract from the Annual Report of the Chief of Engineers to the Secretary of War.]

Office of the Chief of Engineers,
United States Army,
Washington, September 29, 1902.

[Stamped]: Drafting Room File

* * * * * * * *

## IMPROVEMENT OF RIVERS AND HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO BAY.

This district was in charge of Capt. J. J. Meyler, Corps of Engineers, to December 12, 1901; in the temporary charge of Lieut.



Col. Charles E. L. B. Davis, Corps of Engineers, from December 13, 1901, to January 28, 1902; in the temporary charge of Lieut. Col. Thomas H. Handbury, Corps of Engineers, from January 28 to March 31, 1902, and in the charge of Capt. Edgar Jadwin, Corps of Engineers, since March 31, 1902. Division Engineer, Col. Jared A. Smith, Corps of Engineers, to September 23, 1901, and Lieut. Col. D. P. Heap, Corps of Engineers, from September 23 to December 13, 1901, and since March 31, 1902.

1. San Diego Harbor, California.—San Diego Harbor is just north of the national boundary of Mexico and 482 nautical miles south of San Francisco.

The river and harbor act approved March 3, 1875, appropriated $80,000 for the construction of a dike across the mouth of the San Diego River, causing it to empty into False Bay, and thus prevent San Diego Harbor from being injured by the deposit of material brought down during flood stages. This work was completed in 1876, at a cost of $79,798.72, which, with the cost of repairs made up to the time of adoption of the present project, brought this amount to $81,918.45.

The present project for the improvement of the harbor, approved December 8 and 30, 1890, has for its object the

construction of a jetty on Zuninga Shoal, at the entrance to the harbor; the maintaining of a channel 24 feet deep at mean low tide and 500 feet wide through the middle ground, and the repairs of the dike. The jetty was to be about 7,500 feet long, extending from Coronado Island out on Zuninga Shoal, with a view to gaining 26 feet at mean low tide on the outer bar, where the survey of 1887 showed a depth of 21 feet.

The original estimated cost of this improvement was $394,400 but as work on the inner half of the jetty progressed under the different contracts it became evident that this sum would be inadequate. Therefore, under date of June 20, 1900, the local officer was authorized to change this estimated cost to $542,850.

The amount expended on the present project up to the close of the fiscal year ending June 30, 1902, is $273,-863.75. The jetty has been completed for a distance of 4,595 feet, and the foundation course extended 430 feet farther.

No material results in the way of increased depth or width of channel over the outer bar have been obtained during the past fiscal year, the least channel depth being approximately 22 feet; the average height of all high waters above the plane of reference is 4.8 feet.

In 1896 a contract for further repairs on the restraining dike was made the cost of the work amounting to $4,913.58.

The river and harbor act of June 13, 1902, has appropriated $75,000 for continuing this improvement, with the proviso that a contract or contracts may be entered into by the Secretary of War for such materials and work as may be necessary to complete the approved project, to be

paid for as appropriations may from time to time be made by law, not to exceed in the aggregate $192,850 in addition to the $75,000 mentioned above. The work of continuing this improvement will be begun at an early date. 522 Report of the Chief of Engineers, U. S. Army.

The commerce of this harbor was 121,130 tons for the year 1901, this being a decrease of 20 per cent over that of the previous year. The effect on commerce of this work of improvement will be to admit of the entrance of deeper-draft vessels, and to make their passage safer by straightening out the channel.

| | |
|---|---|
| July 1, 1901, balance unexpended | $1,718.32 |
| Amount appropriated by river and harbor act approved June 13, 1902 | 75,000.00 |
| | 76,718.32 |
| June 30, 1902, amount expended during fiscal year | .52 |
| July 1, 1902, balance unexpended | 76,717.80 |
| Amount (estimated) required for completion of existing project | 192,850.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1904, in addition to the balance unexpended July 1, 1902 | 192,850.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897.

(See Appendix S S 1.)

2. Deep-water harbor at San Pedro Bay, California.—The river and harbor act of June 3, 1896, provided for the appointment of a Board to determine upon the location of a deep-water harbor for commerce and for refuge in

Santa Monica Bay, California, or at San Pedro, in the same State, the decision of a majority of the Board as to location to be final. The Board was to make plans, specifications, and estimates for said improvement. After the Board had rendered its decision and submitted its report the Secretary of War was empowered to make contracts for the completion of the selected harbor in accordance with the project of the Board, at a cost not exceeding in the aggregate $2,900,000.

In accordance with the provisions of this act a Board was appointed, which submitted its report March 1, 1897, deciding in favor of San Pedro Bay. The report of the Board is printed in Senate Doc. No. 18, Fifty-fifth Congress, first session.

On August 12, 1898, a contract was entered into with Messrs. Heldmaier & Neu, of Chicago, Ill., for the construction of the entire breakwater, the price bid by them being $1,303,198.54. The contractors were to commence work on or before November 12, 1898, and they were to so prosecute it as to earn each year the money appropriated by Congress.

This contract was annulled on March 19, 1900, the contractors having failed to attain the rate of progress required by the specifications.

On June 7, 1900, a contract for continuing and completing the construction of the breakwater was entered into with the California Construction Company, of San Francisco, Cal., and the same was approved by the Chief of Engineers on June 27, 1900; time of commencement of work to be August 4, 1900; rate of progress to be as required by the specifications. The estimated cost of this work at the prices bid for stone and concrete, and allowing

10 per cent for engineering expenses and contingencies, is $2,613,100.66.

Under this contract 645,149 tons of stone has been delivered and placed in the substructure of the breakwater. This substructure is practically completed for a distance of 4,016 feet from its westerly extremity, and has been more or less built up for a distance of 560 feet farther.

The amount expended on this work to June 30, 1902, is $537,982.63.

River and Harbor Improvements. 523

The commerce of San Pedro Harbor, heretofore simply an anchorage ground in open roadstead, is so intimately connected with that of Wilmington Harbor that reference is made thereto for statistics on same. The effect on commerce of this work will be to afford a place of refuge, easy of access and secure from storms, for coastwise and deep-draft vessels, and a protected harbor of about 1 square mile in area for the commerce of the latter class of vessels. Vessels while waiting for a favorable tide in order to enter the inner harbor of San Pedro now anchor in the lee of the partly built breakwater.

| | |
|---|---|
| July 1, 1901, balance unexpended | $575,152.92 |
| Amount appropriated by sundry civil act approved June 28, 1902 | 311,085.00 |
| | 886,237.92 |
| June 30, 1902, amount expended during fiscal year | 352,691.31 |
| July 1, 1902, balance unexpended | 533,546.61 |
| July 1, 1902, outstanding liabilities | 32,679.51 |

| | |
|---|---|
| July 1, 1902, balance available | 500,867.10 |
| July 1, 1902, amount covered by uncompleted contracts | 2,093,975.95 |
| Amount (estimated) required for completion of existing project | 1,593,108.43 |
| Amount that can be profitably expended in fiscal year ending June 30, 1904, in addition to the balance unexpended July 1, 1902 | 400,000.00 |
| Submitted in compliance with requirements of sundry civil act of June 4, 1897. | |

(See Appendix S S 2.)

3. Wilmington Harbor, California.—Wilmington is situated at the head of a small estuary which has its outlet in the bay of San Pedro, and is 393 nautical miles to the southward of San Francisco.

Previous to the commencement of the improvement, in 1871, there was a depth of less than 2 feet of water at low tide at the entrance.

The original project, approved July 1, 1871, contemplated gaining a depth of 10 feet at mean low tide. This depth was obtained in 1881, at a cost of $555,000, when a further project to increase depth of channel from 10 to 15 feet at mean low tide by dredging a reef and between the jetties, raising existing works, and extending the jetties to 18 feet of water in San Pedro Bay was submitted. This project was completed in 1893, at a cost of $399,497.68.

The river and harbor act of June 3, 1896, appropriated $50,000 for improving the harbor in accordance with a

project submitted in 1894 for a channel depth of 18 feet at mean low tide, at an estimated cost of $392,725. Owing to certain provisos, however, this money was not available without further action by Congress.

The river and harbor act of June 13, 1902, provides for the further improvement of this harbor by appropriating $250,000 for carrying forward this work in accordance with the plan for its partial improvement as submitted in House Doc. No. 357, Fifty-sixth Congress, first session (see also Annual Report of the Chief of Engineers for 1900, pp. 4194-4211), including the construction or purchase of a suitable dredge; the unexpended $50,000 appropriated under act of June 3, 1896, is also made available for this work.

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* A refundment of $299.58 was made in September, 1901, by the disbursing officer of the Board authorized by act of June 3, 1896, to locate the deep-water harbor, being the amount of a disallowance by the Auditor in settlement of his accounts. The amount expended by the Board is, therefore, $35,555.76, instead of $35,855.34, as heretofore reported.

524 Report of the Chief of Engineers, U. S. Army.

This work, including dredge, is estimated to cost $550,000. Work on this project will be begun at an early date.

Up to the close of the fiscal year ending June 30, 1902, the amount expended on this improvement is $954,497.68, though no work has been done since 1893.

By this expenditure the available channel depth has been increased from 2 feet to approximately 15 feet at mean low tide, which is the least channel depth over the bar at

the entrance at the close of the fiscal year; the average rise of the tide above this plane of reference is 5.1 feet.

The commerce of this harbor, which is principally coastwise, was 486,788 tons for the year 1901, an increase of 91.8 per cent over the previous year. No new steamship lines have been established during the year.

| | |
|---|---|
| July 1, 1901, balance unexpended | $50,502.32 |
| Amount appropriated by river and harbor act approved June 13, 1902 | 250,000.00 |
| July 1, 1902, balance unexpended | 300,502.32 |

(See Appendix S S 3.)

4. San Luis Obispo Harbor, California.—San Luis Obispo Harbor is 9 miles to the southward and westward of the town of San Luis Obispo, 216 nautical miles from San Francisco.

It is a bight of the coast about 18 miles long between Point San Luis on the north and Point Sal on the south. The upper end, where Port Harford is situated, has a wharf and is the part used for commercial purposes. Whaler Reef, extending nearly half a mile to the southward and eastward of Point San Luis, forms more or less of a natural breakwater, but during the winter season it is exposed to the heavy swell caused by southerly gales.

The original project, approved September 22, 1888, was to construct a breakwater of rough stone on Whaler Reef, extending from Point San Luis to Whaler Island, and thence to a point where the outer reef rises above high water. Its length when completed, including the island, was to be nearly 2,000 feet, and it was to be brought up to the plane of mean low water, at an estimated cost of $284,898. This project was subsequently modified, Janu-

ary 17, 1893, so as to raise the structure to a height of 6 feet above high water, with a thickness on top of 20 feet and such side slopes as may be assumed under the action of the sea. The estimated cost was increased to $568,660.

The amount expended up to the close of the fiscal year ending June 30, 1902, was $228,799.06.

The completed breakwater has been built from Point San Luis and extended to a distance of 745 feet from Whaler Island, and a section, more or less completed, has been built 455 feet farther. The result has been to give increased security to vessels at the landing and anchorage against heavy swells.

The storms of the last two winters have knocked down a portion of the outer end of the breakwater. More or less stone has also been knocked off in other places by the heavy seas breaking over the structure.

The river and harbor act approved June 13, 1902, appropriated $50,000 for continuing this improvement, and work will be begun at an early date.

The commerce of this harbor was 40,996 tons for 1901, an increase of 16 per cent over that of the previous year.

River and Harbor Improvements. 525

| | |
|---|---|
| July 1, 1901, balance unexpended | $1,200.94 |
| Amount appropriated by river and harbor act approved June 13, 1902 | 50,000.00 |
| July 1, 1902, balance unexpended | 51,200.94 |
| July 1, 1902, outstanding liabilities | 41.25 |
| July 1, 1902, balance available | 51,159.69 |

(See Appendix S S 4.)

5. Removing sunken vessels or craft obstructing or endangering navigation.—The wreck of a sailboat (name unknown) was removed from the channel in the inner harbor at San Pedro on October 28, 1901, at a cost of $75. (See Appendix S S 5.)

* * * * * * *

## APPENDIX S S.

## IMPROVEMENT OF RIVERS AND HARBORS IN CALIFORNIA, SOUTH OF SAN FRANCISCO BAY.

Report of Capt. Edgar Jadwin, Corps of Engineers, Officer in Charge, for the Fiscal Year Ending June 30, 1902, With Other Documents Relating to the Works.

Improvements.

1. San Diego Harbor, California.
2. Deep-water harbor at San Pedro Bay, California.
3. Wilmington Harbor, California.
4. San Luis Obispo Harbor, California.
5. Removing sunken vessels or craft obstructing or endangering navigation.

United States Engineer Office,
Los Angeles, Cal., July 15, 1902.

General: I have the honor to transmit herewith annual reports for works of river and harbor improvement under my charge for the fiscal year ending June 30, 1902.

Very respectfully, your obedient servant,

Edgar Jadwin,
Captain, Corps of Engineers.

Brig. Gen. G. L. Gillespie,
Chief of Engineers, U. S. A.

## S S 1.
## IMPROVEMENT OF SAN DIEGO HARBOR, CALIFORNIA.

During the fiscal year no work has been done and no increased depth on the bar, due to scour, has been obtained, approximately 22 feet being the maximum draft that can be carried over the shoalest part of the bar at the entrance to the harbor. An increase in velocity of the tide over the bar is reported.

The erosion along the westerly extremity of North Island, which had been considerable during previous years, has been very slight during the last year.

The sum of $75,000 was appropriated by the river and harbor act of June 13, 1902, for continuing this improvement with the proviso that a contract or contracts may be entered into by the Secretary of War for such materials and work as may be necessary to complete the



approved project, to be paid for as appropriations may be made by law, not to exceed in the aggregate $192,850 in addition to the $75,000. Contracts for this work will be made at an early date.

Money statement.

| | |
|---|---|
| July 1, 1901, balance unexpended | $1,718.32 |
| Amount appropriated by river and harbor act approved June 13, 1902 | 75,000.00 |
| | 76,718.32 |
| June 30, 1902, amount expended during fiscal year | .52 |
| July 1, 1902, balance unexpended | 76,717.80 |

| | |
|---|---|
| Amount (estimated) required for completion of existing project | 192,850.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1904, in addition to the balance unexpended July 1, 1902 | 192,850.00 |
| Submitted in compliance with requirements of sundry civil act of June 4, 1897. | |

Amount and Date of All Appropriations for the Work Since 1875.

| | | | |
|---|---|---|---|
| March 3, 1875 | $80,000 | June 3, 1896 | $50,000 |
| March 3, 1879 | 1,000 | March 3, 1899 | 65,000 |
| August 11, 1888 | 1,000 | June 13, 1902 | 75,000 |
| September 19, 1890 | 60,500 | | |
| July 13, 1892 | 50,000 | | |
| August 18, 1894 | 50,000 | | |
| | | Total | 432,500 |

Commercial Statistics for the Year Ending December 31, 1901.

[Furnished by the collector of customs at San Diego, Cal.]

| | Incoming. | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 196 | 107 |
| Sailing | 49 | 41 |
| Total | 245 | 148 |
| Tonnage | 227,194 | 107,064 |
| Draft, greatest, feet | 23 | 25.9 |
| Merchandise, general, tons | 31,042 | 15,299 |

| | | | |
|---|---|---|---|
| Coal | do | 42,225 | 197 |
| Cement | barrels | 55,829 | 61 |
| Cotton | tons | | 2,834 |
| Lumber | feet | 29,486,000 | 500,000 |
| Guano | tons | 480 | |
| Ore | do | 134 | |

Total amount of freight entered and cleared in 1901, 121,130 tons.

---

## S S 2.

## DEEP-WATER HARBOR AT SAN PEDRO BAY, CALIFORNIA.

The construction of the breakwater was continued during the year, under contract dated June 7, 1900, with the California Construction Company, of San Francisco, Cal.

At the beginning of the fiscal year 199,260 tons of substructure stone had been placed, 1,808 feet of the substructure at its westerly



end had been practically completed, and stone had been deposited for a distance of 944 feet farther, and 2,837 feet of double-track trestle had been built along the site of the breakwater and connected with the shore by 1,900 feet of single-track trestle approach.

During the fiscal year 131,307 tons of sandstone from the quarry at Chatsworth Park, Cal., have been delivered, placed in the hearting of the substructure, and covered with 323,582 tons of granite from Declez, Cal.; the practically completed substructure has been extended 2,208 feet, or to a distance of 4,016 feet from its westerly

end, and stone has been deposited for a distance of 560 feet farther; 116 bents, or 1,851 feet, of double-track trestle have been built; and about 920 tons of granite for the superstructure have been quarried at Casa Blanca, Cal., and delivered at the breakwater, but have not yet been put in place. The contractors are now arranging for another movable derrick for this purpose.

At the beginning of the fiscal year the contractors were, in the amount of stone delivered, over three months' work behind the amount required by the specifications. About two-thirds of this deficiency has been made up during this fiscal year.

The piles of the trestle are becoming eaten by the teredo, and many of those in the approach were in such bad condition that it was necessary to replace them with new piles.

Enough breakwater has already been constructed to serve as a partial protection in stormy weather. During a recent storm waves of from 8 to 10 feet in height broke at the substructure, causing waves of from 3 to 4 feet only to pass over the anchorage.

The total amount expended on the construction of this breakwater up to June 30, 1902, including outstanding liabilities, is $570,662.14.

The available balance, together with any additional appropriation, should be expended in extending the breakwater, under contract, and for contingencies.

Money statement.

| | |
|---|---|
| July 1, 1901, balance unexpended | *$575,152.92 |
| Amount appropriated by sundry civil act approved June 28, 1902 | 311,085.00 |
| | 886,237.92 |
| June 30, 1902, amount expended during fiscal year | 352,691.31 |
| July 1, 1902, balance unexpended | 533,546.61 |
| July 1, 1902, outstanding liabilities | 32,679.51 |
| July 1, 1902, balance available | 500,867.10 |
| July 1, 1902, amount covered by uncompleted contracts | 2,093,975.95 |
| Amount (estimated) required for completion of existing project | 1,593,108.85 |
| Amount that can be profitably expended in fiscal year ending June 30, 1904, in addition to the balance unexpended July 1, 1902 | 500,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897.

*A refundment of $299.58 was made in September, 1901, by the disbursing officer of the Board authorized by act of June 3, 1896, to locate the deep-water harbor, being the amount of a disallowance by the Auditor in settlement of his accounts. The amount expended by the Board is therefore $35,555.76, instead of $35,855.34 as heretofore reported.

Amount and Date of All Appropriations for the Work.

| | | | |
|---|---|---|---|
| June 3, 1896..... | $50,000 | June 28, 1902.... | $311,085 |
| July 1, 1898..... | 400,000 | | |
| March 3, 1899.... | 200,000 | Total..... | 1,107,085 |
| March 3, 1901.... | 146,000 | | |

Contracts in Force.

A contract was entered into for the completion of this breakwater with the California Construction Company, of San Francisco, Cal., on June 7, 1900, and approved June 27, 1900; date of commencement of work, August 4, 1900; date of completion, indefinite, depending on appropriations made by Congress.

Commercial Statistics for the Year Ending December 31, 1901.

For the commercial statistics, see report of Wilmington Harbor, California.

## S S 3.

## IMPROVEMENT OF WILMINGTON HARBOR, CALIFORNIA.

No work has been done on this improvement since 1893. At that time the available channel depth was 14 feet at mean low water. This has been increased to approximately 15 feet, and the bar to the south of Deadmans Island, which has been the shoalest part of the entrance, has receded materially, making a straighter and deeper channel.

The shoalest part of the entrance is now to the west of the east jetty, near Deadmans Island. The bottom here is of hard material, and as the depth of water has not changed essentially in the last ten years, it must be removed by dredging.

The river and harbor act of June 13, 1902, has appropriated $250,000, and also made available the $50,000 appropriated by river and harbor act of June 3, 1896, for the further improvement of this harbor in accordance with the following project (see House Doc. No. 357, Fifty-sixth Congress, first session, or report of the Chief of Engineers for 1900, pp. 4194-4211):

To dredge a channel 20 feet deep and 400 feet wide from the ocean to the lower end of the wharves; to dredge between harbor lines from the lower to the upper end of the wharves to a depth of 24 feet; to dredge a turning basin 1,600 feet in diameter between the upper end of the wharves and the lower end of Mormon Island to a depth of 24 feet; to replace with stone the decayed timber in the single work of the east jetty, and to build the restraining dike at the head of the lagoon in order to divert deposit from the Los Angeles River.

The construction or purchase of a suitable dredge is also authorized.

Further work in accordance with the approved project will be undertaken at an early date.

---

[a]Of the appropriation of $50,000 made by river and harbor act of June 3, 1896, for deep-water harbor at Santa Monica Bay, or San Pedro Bay, California, $35,555.76 was expended by the Board provided for by said act. For the full report of the Board, with its accompanying documents, see Senate Doc. No. 18, Fifty-fifth Congress, first session.

Money statement.

| | |
|---|---|
| July 1, 1901, balance unexpended | $50,502.32 |
| Amount appropriated by river and harbor act approved June 13, 1902 | 250,000.00 |
| July 1, 1902, balance unexpended | 300,502.32 |
| Amount (estimated) required for completion of existing project | 249,497.68 |

Amount and Date of All Appropriations for the Work.

| | | | |
|---|---|---|---|
| March 3, 1871 | $200,000 | August 5, 1886 | 75,000 |
| June 10, 1872 | 75,000 | August 11, 1888 | 90,000 |
| March 3, 1873 | 150,000 | September 19, 1890 | 34,000 |
| March 3, 1875 | 30,000 | July 13, 1892 | 51,000 |
| June 18, 1878 | 20,000 | June 3, 1896 | 50,000 |
| March 3, 1879 | 12,000 | June 13, 1902 | 250,000 |
| June 14, 1880 | 35,000 | Total | 1,255,000 |
| March 3, 1881 | 33,000 | | |
| August 2, 1882 | 100,000 | | |
| July 5, 1884 | $50,000 | | |

Commercial Statistics for the Year Ending December 31, 1901.

[Furnished by the collector of customs at Los Angeles, Cal.]

| | Foreign commerce. | | Domestic commerce. | |
|---|---|---|---|---|
| | Incoming. | Outgoing. | Incoming. | Outgoing. |
| Vessels: | | | | |
| Steam | 2 | | 342 | 342 |
| Sailing | 3 | 2 | 235 | 235 |
| Total | 5 | 2 | 577 | 577 |

| | | | | |
|---|---|---|---|---|
| Tonnage | 1,919 | 33 | 218,680 | 218,680 |
| Draft, greatest.....feet.... | 18 | 6 | 20 | 18 |
| Merchandise, general.....tons.... | 374 | ..... | 8,629 | 3,780 |
| Coal .....do.... | ..... | ..... | ..... | ..... |
| Lumber .....feet | ..... | ..... | 1,585,945 | ..... |
| Crude oil....barrels.... | ..... | ..... | ..... | 65,000 |

Total amount of freight entered and cleared in 1901, 486,788 tons.

## S S 4.

## IMPROVEMENT OF SAN LUIS OBISPO HARBOR, CALIFORNIA.

No work on this improvement has been done during the year, no funds being available.

The river and harbor act of June 13, 1902, provides for the extension of the breakwater, and appropriates $50,000 for this purpose. A contract for doing this work will be made at an early date.



Money statement.

| | |
|---|---|
| July 1, 1901, balance unexpended | $1,200.94 |
| Amount appropriated by river and harbor act approved June 13, 1902 | 50,000.00 |
| July 1, 1902, balance unexpended | 51,200.94 |

| | |
|---|---|
| July 1, 1902, outstanding liabilities | 41.25 |
| July 1, 1902, balance available | 51,159.69 |
| Amount (estimated) required for completion of existing project | 288,660.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1904, in addition to the balance unexpended July 1, 1902 | 100,000.00 |
| Submitted in compliance with requirements of sundry civil act of June 4, 1897. | |

Amount and Date of All Appropriations for the Work.

| | | | |
|---|---|---|---|
| August 11, 1888 | $25,000 | March 3, 1899 | $55,000 |
| September 19, 1890 | 40,000 | June 13, 1902 | 50,000 |
| July 13, 1892 | 30,000 | | |
| August 18, 1894 | 40,000 | Total | 280,000 |
| June 3, 1896 | 40,000 | | |

Commercial Statistics for the Year Ending December 31, 1901.

[Furnished by the Pacific Coast Railway Company.]

| | Incoming. | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 239 | 239 |
| Sailing | 3 | 3 |
| Total | 242 | 242 |

| | | | |
|---|---|---|---|
| Tonnage | | 155,950 | 155,950 |
| Draft, greatest | feet | 18 | 18 |
| Merchandise, general | tons | 5,699 | 1,304 |
| Coal | do | 453 | |
| Lumber | feet | 1,753,879 | |
| Grain | tons | | 25,978 |
| Bituminous rock | do | | 3,182 |
| Dairy products | do | | 870 |
| Live stock | do | 2 | |

Total amount of freight entered and cleared in 1901, 40,996 tons.

---

S S 5.

## REMOVING SUNKEN VESSELS OR CRAFT OBSTRUCTING OR ENDANGERING NAVIGATION.

On August 22, it was reported that a sailboat lying in the channel in the inner harbor at San Pedro was an obstruction to navigation and that the owner, who had made several unsuccessful attempts to raise the boat, had finally abandoned it.

On October 15, 1901, an allotment of $75 was made for the removal of the wreck.

The wreck was removed on October 28 at a cost of $75.

[Stamped]: Drafting Room File

UNITED STATES [Emblem] OF AMERICA
WAR DEPARTMMENT

Washington, November 15, 1930.

I hereby certify that the attached pamphlet is a true copy of an extract from the Annual Report of the Chief of Engineers for 1902, on file in the Office of the Chief of Engineers, United States Army.

Lytle Brown
Lytle Brown,
Major General,
Chief of Engineers.
BD

I hereby certify that Lytle Brown, who signed the foregoing certificate, is the Chief of Engineers, United States Army and that to his certification as such full faith and credit are and ought to be given.

In, testimony whereof I, Patrick J. Hurley, Secretary of War, have hereunto caused the Seal of the War Department to be affixed and my name to be subscribed by the Assistant and Chief Clerk of the said Department, at the City of Washington, this —18th— day of November, 1930.

Patrick J. Hurley
[SEAL] Secretary of War.
By John C. Scofield
Assistant and Chief Clerk.

Q-12-J. City of L A vs. Borax Plf Exhibit No. 24 Filed 11/14 1933 R. S. Zimmerman, Clerk. By Cross Deputy Clerk.

ANNUAL REPORT

upon the

IMPROVEMENTS OF HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO,

in the charge of

J. H. Willard,

Major, Corps of Engineers, U. S. A.,

and

Edgar Jadwin,

Captain, Corps of Engineers, U. S. A.;

being

APPENDIX U U

of the

Annual Report of the Chief of Engineers for 1903.

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WASHINGTON:
Government Printing Office.
1903.

[Stamped]: Drafting Room File

[EXTRACT FROM THE ANNUAL REPORT OF THE CHIEF OF ENGINEERS TO THE SECRETARY OF WAR.]

Office of the Chief of Engineers,
United States Army,
Washington, September 29, 1903.

* * * * * * *

## IMPROVEMENT OF HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO.

This district was in charge of Capt. Edgar Jadwin, Corps of Engineers, until June 17, 1903, and of Maj. J. H.

Willard, Corps of Engineers, since that date. Division Engineer, Col. D. P. Heap, Corps of Engineers.

1. San Diego Harbor, California.—San Diego Harbor is just north of the national boundary of Mexico and 482 nautical miles south of San Francisco.

The river and harbor act approved March 3, 1875, appropriated $80,000 for the construction of a dike across the mouth of the San Diego River, causing it to empty into False Bay, and thus preventing San Diego Harbor from being injured by the deposit of material brought down during flood stages. This work was completed in 1876, at a cost of $79,798.72, which, with the cost of repairs made up to the time of adoption of the present project, brought the total of expenditures to $81,918.45.

The present project for the improvement of the harbor, approved December 8 and 30, 1890, has for its object the construction of a jetty on Zuninga shoal, at the entrance to the harbor; the maintaining of a channel 24 feet deep at mean low tide and 500 feet wide through the middle ground, and the repairs of the dike. The jetty was to be about 7,500 feet long, extending from Coronado Island out on Zuninga shoal, with a view to gaining 26 feet at mean low tide on the outer bar, where the survey of 1887 showed a depth of 21 feet.

The original estimated cost of this improvement was $394,400, but as work on the inner half of the jetty progressed under the different contracts it became evident that this sum would be inadequate. Therefore, under date of June 20, 1900, the local officer was authorized to change this estimated cost to $542,850.

This project was modified July 29, 1902, so as to include dredging on the outer bar to a depth of 26 feet at low water and a width of channel of about 500 feet.

576 Report of the Chief of Engineers, U. S. Army.

The amount expended on the present project up to the close of the fiscal year ending June 30, 1903, is $277,655.47.

The jetty has been completed for a distance of 4,595 feet, and the foundation course extended 430 feet farther. No work has been done since October, 1900.

No material results in the way of increased depth or width of channel over the outer bar have been obtained during the past year, the least channel depth being approximately 22 feet; the average height of all high waters above the plane of reference is 4.8 feet.

In 1896 a contract for further repairs on the restraining dike was made, the cost of the work amounting to $4,913.58.

The river and harbor act of June 13, 1902, appropriated $75,000 for continuing this improvement, with the proviso that a contract or contracts might be entered into by the Secretary of War for such materials and work as might be necessary to complete the approved project at a cost not to exceed in the aggregate $192,850, in addition to the $75,000 mentioned above. The sundry civil act of March 3, 1903, appropriated the $192,850 for the completion of the project, and contracts for doing the work have been awarded.

The commerce of this harbor was 105,100 tons for the year 1902, this being a decrease of 13 per cent from that of the previous year. The effect on commerce of this

work of improvement will be to admit of the entrance of deeper-draft vessels and to make their passage safer by straightening the channel.

| | |
|---|---|
| July 1, 1902, balance unexpended | $76,717.80 |
| Amount appropriated by sundry civil act approved March 3, 1903 | 192,850.00 |
| | 269,567.80 |
| June 30, 1903, amount expended during fiscal year | 3,791.72 |
| July 1, 1903, balance unexpended | 265,776.08 |
| July 1, 1903, outstanding liabilities | 42.40 |
| July 1, 1903, balance available | 265,733.68 |
| July 1, 1903, amount covered by uncompleted contracts | 235,000.00 |

(See Appendix U U 1.)

2. Deep-water harbor at San Pedro Bay, California.—The river and harbor act of June 3, 1896, provided for the appointment of a Board to determine upon the location of a deep-water harbor for commerce and for refuge in Santa Monica Bay, California, or at San Pedro, in the same State, the decision of a majority of the Board as to location to be final. The Board was to make plans, specifications, and estimates for said improvement. After the Board had rendered its decision and submitted its report the Secretary of War was empowered to make contracts for the completion of the selected harbor in accordance with the project of the Board, at a cost not exceeding in the aggregate $2,900,000.

In accordance with the provisions of this act a Board was appointed, which submitted its report March 1, 1897, deciding in favor of San Pedro Bay. The report of the Board is printed in Senate Document No. 18, Fifty-fifth Congress, first session.

On August 12, 1898, a contract was entered into with Messrs. Heldmaier & Neu, of Chicago, Ill., for the construction of the entire breakwater, the price bid by them being $1,303,198.54. The contractors were to commence work on or before November 12, 1898, and they were so to prosecute it as to earn each year the money appropriated by Congress.

This contract was annulled on March 19, 1900, the contractors having failed to attain the rate of progress required by the specifications.

On June 7, 1900, a contract for continuing and completing the construction of the breakwater was entered into with the California Construction Company, of San Francisco, Cal., and the same was approved by the Chief of Engineers on June 27, 1900; time of commencement of work to be August 4, 1900. The estimated cost of this work, using the quantities on which bids were canvassed and the prices bid for stone and concrete, and allowing 10 per cent for engineering expenses and contingencies, is $2,613,100.66, exclusive of expenditures prior to June 30, 1900.

Under this contract 1,118,783 tons of stone has been delivered and placed in the substructure of the breakwater. This substructure is practically completed for a distance of 5,715 feet from its westerly extremity, and has been more or less built up for a distance of 350 feet farther.

The superstructure was begun at a distance of 632 feet from the westerly end of the breakwater and extended eastward 678 feet on the ocean side and 735 feet on the harbor side, 21,242 tons of stone having been placed in the work.

The amount expended on this work to June 30, 1903, is $959,436.92.

The commerce of San Pedro Harbor, heretofore simply an anchorage ground in an open roadstead, is so intimately connected with that of Wilmington Harbor that reference is made thereto for statistics on same. The effect on commerce of this work will be to afford a place of refuge, easy of access and secure from storms, for coastwise and deep-draft vessels, and a protected harbor of about 1 square mile in area for the commerce of the latter class of vessels. Vessels while waiting for a favorable tide in order to enter the inner harbor of San Pedro now anchor in the lee of the partly built breakwater.

| | |
|---|---|
| July 1, 1902, balance unexpended | $533,546.61 |
| Proceeds of sale of condemned engineer property | .05 |
| Amount appropriated by sundry civil act approved March 3, 1903 | 500,000.00 |
| | 1,033,546.66 |
| June 30, 1903, amount expended during fiscal year | 421,454.29 |
| July 1, 1903, balance unexpended | 612,092.37 |
| July 1, 1903, outstanding liabilities | 40,573.75 |

| | |
|---|---|
| July 1, 1903, balance available | 571,518.62 |
| July 1, 1903, amount covered by uncompleted contracts | 1,664,627.42 |
| Amount (estimated) required for completion of existing project | 1,093,108.85 |
| Amount that can be profitably expended in fiscal year ending June 30, 1905, in addition to the balance available July 1, 1903 | 500,000.00 |
| Submitted in compliance with requirements of sundry civil act of June 4, 1897. | |

(See Appendix U U 2.)

3. Wilmington Harbor, California.—Wilmington is situated at the head of a small estuary which has its outlet in the bay of San Pedro, and is 393 nautical miles to the southward of San Francisco.



Previous to the commencement of the improvement, in 1871, there was a depth of less than 2 feet of water at low tide at the entrance.

The original project, approved July 1, 1871, contemplated gaining a depth of 10 feet at mean low tide. This depth was obtained in 1881, at a cost of $555,000, when a further project to increase depth of channel from 10 to 15 feet at mean low tide by dredging a reef between the jetties, raising existing works, and extending the jetties to 18 feet of water in San Pedro Bay was submitted. This project was completed in 1893, at a cost of $399,497.68.

The river and harbor act of June 3, 1896, appropriated $50,000 for improving the harbor in accordance with a project submitted in 1894 for a channel depth of 18 feet at mean low tide, at an estimated cost of $392,725. Owing to certain provisos, however, this money was not available without further action by Congress.

The river and harbor act of June 13, 1902, provided for the further improvement of this harbor by appropriating $250,000 for carrying forward this work in accordance with the plan for its partial improvement as submitted in House Document No. 357, Fifty-sixth Congress, first session (see also Annual Report of the Chief of Engineers for 1900, pp. 4194-4211), including the construction or purchase of a suitable dredge; the unexpended $50,000 appropriated under act of June 3, 1896, was also made available for this work.

This work, including dredge, is estimated to cost $550,000. Work on this project was begun October 17, 1902. A weak portion of the east jetty was reenforced with stone, and dredging the harbor under contract was begun.

Up to the close of the fiscal year ending June 30, 1903, the amount expended on this improvement was $978,418.14.

By this expenditure the available channel depth has been increased from 2 feet to approximately 15.6 feet at mean low tide, which is the least channel depth over the bar at the entrance at the close of the fiscal year; the average rise of the tide above this plane of reference is 5.1 feet.

The commerce of this harbor, which is principally coastwise, was 595,148 tons for the year 1902, an increase of 22 per cent over the preceding year.

| | |
|---|---|
| July 1, 1902, balance unexpended | $300,502.32 |
| June 30, 1903, amount expended during fiscal year | 23,920.46 |
| July 1, 1903, balance unexpended | 276,581.86 |
| July 1, 1903, outstanding liabilities | 9,676.08 |
| July 1, 1903, balance available | 266,905.78 |
| July 1, 1903, amount covered by uncompleted contracts | 76,323.29 |
| Amount (estimated) required for completion of existing project | 249,497.68 |
| Amount that can be profitably expended in fiscal year ending June 30, 1905, in addition to the balance available July 1, 1903 | 50,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897.

(See Appendix U U 3.)

4. San Luis Obispo Harbor, California.—San Luis Obispo Harbor is 9 miles to the southward and westward of the town of San Luis Obispo, 216 nautical miles from San Francisco.

It is a bight of the coast about 18 miles long between Point San Luis



on the north and Point Sal on the south. The upper end,

where Port Harford is situated, has a wharf and is the part used for commercial purposes. Whaler reef, extending nearly half a mile to the southward and eastward of Point San Luis, forms more or less of a natural breakwater, but during the winter season it is exposed to the heavy swell caused by southerly gales.

The original project, approved September 22, 1888, was to construct a breakwater of rough stone on Whaler reef, extending from Point San Luis to Whaler Island, and thence to a point where the outer reef rises above high water. Its length when completed, including the island, was to be nearly 2,000 feet, and it was to be brought up to the plane of mean low water, at an estimated cost of $284,898. This project was subsequently modified, January 17, 1893, so as to raise the structure to a height of 6 feet above high water, with a thickness on top of 20 feet and such side slopes as may be assumed under the action of the sea. The estimated cost was increased to $568,660.

The storms of the last three winters have knocked down a portion of the outer end of the breakwater. More or less stone has also been knocked off in other places by the heavy seas breaking over the structure.

A contract for the expenditure of the $50,000 appropriated by river and harbor act of June 13, 1902, has been made, at $1.86 per short ton of stone delivered and placed in the breakwater. Work under this contract was begun April 25, 1903, but owing to the continued rough weather only 4,711 tons of stone has been delivered.

The amount expended on this work up to the close of the fiscal year ending June 30, 1903, is $231,312.48.

The completed breakwater has been built from Point San Luis and extended to a distance of 700 feet from Whaler Island, and a section, more or less completed, has been built 500 feet farther. The result has been to give increased security to vessels at the landing and anchorage against heavy swells.

The commerce of this harbor was 55,707 tons for the year 1902, an increase of 36 per cent over the preceding year.

| | |
|---|---|
| July 1, 1902, balance unexpended | $51,200.94 |
| Proceeds of sale of condemned engineer property | .95 |
| | 51,201.89 |
| June 30, 1903, amount expended during fiscal year | 2,513.42 |
| July 1, 1903, balance unexpended | 48,688.47 |
| July 1, 1903, outstanding liabilities | 6,710.98 |
| July 1, 1903, balance available | 41,977.49 |
| July 1, 1903, amount covered by uncompleted contracts | 39,503.12 |
| Amount (estimated) required for completion of existing project | 288,660.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1905, in addition to the balance available July 1, 1903 | 65,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897.

(See Appendix U U 4.)

* * * * * * *

# APPENDIX U U.

## Improvement of Rivers and Harbors in California South of San Francisco.

Report for the Fiscal Year Ending June 30, 1903, With Other Documents Relating to the Works. Officers in Charge, Capt. Edgar Jadwin and Maj. J. H. Willard, Corps of Engineers.

Improvements.

1. San Diego Harbor, California.
2. Deep-water harbor at San Pedro Bay, California.
3. Wilmington Harbor, California.
4. San Luis Obispo Harbor, California.

United States Engineer Office,
Los Angeles, Cal., July 11, 1903.

General: I have the honor to transmit herewith annual report on works of river and harbor improvement in my charge for the fiscal year ending June 30, 1903.

Very respectfully, your obedient servant,

J. H. Willard,
Major, Corps of Engineers.

Brig. Gen. G. L. Gillespie,
Chief of Engineers, U. S. A.

## U U.1.

### Improvement of San Diego Harbor, California.

During the fiscal year no work has been done and no increased depth on the bar, due to scour, has been obtained, approximately 22 feet being the maximum draft that can be carried over the shoalest part of the bar at the entrance to the harbor. The depth of water in the middle-ground channel inside the entrance has increased to 17 feet during the year; a much deeper channel around the middle ground follows the westerly shore.

The erosion along the westerly extremity of North Island has continued during the year. Some erosion has also been noticed on the ocean beach opposite Spanish Bight, about 1½ miles to the eastward of the jetty.

Appropriations for completing the project have been made by river and harbor act of June 13, 1902, and by sundry civil act of March 3, 1903, amounting to $267,850.



A contract for the completion of the jetty has been made with A. E. Babcock, of Coronado, Cal., at $1.85 per short ton of stone. The contractor has begun the construction of a single-track trestle from the shore to the end of the completed jetty, a distance of 4,595 feet. From this point on, a double-track trestle over the site of the jetty will be constructed. At the close of the fiscal year 1,050 feet of single track had been constructed and the work of opening the quarry had been commenced.

A contract for dredging 122,800 cubic yards of material on the outer bar was entered into with A. A. Polhamus, of San Diego, Cal., at 28½ cents per cubic yard, scow measurement, material to be dumped at sea. This is expected to deepen the bar to a depth of 26 feet

at mean lower low water over a width of about 500 feet. A new suction dredge, with 12-inch discharge pipe, and hopper barges have been built by the contractor, and dredging is expected to begin early in July.

It is expected to advance the jetty and dredging simultaneously, in order that the increased current induced by the extension of the jetty will be better confined to the bar channel, and do less scouring elsewhere to the detriment of its power for maintenance of the channel in after years.

Surveys and many current observations on the outer bar and middle ground were made during the year.

Money statement.

| | |
|---|---|
| July 1, 1902, balance unexpended | $76,717.80 |
| Amount appropriated by sundry civil act approved March 3, 1903 | 192,850.00 |
| | 269,567.80 |
| June 30, 1903, amount expended during fiscal year | 3,791.72 |
| July 1, 1903, balance unexpended | 265,776.08 |
| July 1, 1903, outstanding liabilities | 42.40 |
| July 1, 1903, balance available | 265,733.68 |
| July 1, 1903, amount covered by uncompleted contracts | 235,000.00 |

Amount and Date of All Appropriations for the Work Since 1875.

| | | | |
|---|---|---|---|
| March 3, 1875 | $80,000 | June 3, 1896 | $50,000 |
| March 3, 1879 | 1,000 | March 3, 1899 | 65,000 |
| August 11, 1888 | 1,000 | June 13, 1902 | 75,000 |
| September 19, 1890 | 60,500 | March 3, 1903 | 192,850 |
| July 13, 1892 | 50,000 | | |
| August 18, 1894 | 50,000 | Total | 625,350 |

---

Abstract of All Contracts in Force.

Contract for dredging on outer bar.

Name of contractor: A. A. Polhamus.

Rate: 28½ cents per cubic yard.

Date of approval: December 4, 1902.

Date of beginning work: July 10, 1903.

Date of expiration: November 13, 1903.

Appendix U U—Report of Major Willard. 2173

Contract for completing jetty.

Name of contractor: A. E. Babcock.

Rates: $1.85 per ton, of 2,000 pounds, of stone.

Date of approval: April 18, 1903.

Date of beginning work: June 26, 1903.

Date of expiration: December 26, 1904.

---

Commercial Statistics for the Year Ending December 31, 1902.

[Furnished by the collector of customs at San Diego, Cal.]

| | Incoming. | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 183 | 183 |
| Sailing | 50 | 33 |
| Total | 233 | 216 |
| Tonnage | 94,342 | 10,759 |
| Draft, greatest.....feet.... | 23 | 22 |
| Merchandise, general.....tons.... | 15,436 | 9,483 |
| Coal .....do..... | 26,126 | 463 |
| Cement .....do..... | 12,380 | 37 |
| Lumber .....feet.... | 20,200,000 | 388,347 |

Total amount of freight entered and cleared in 1902, 105,101 tons, a decrease of 13 per cent from the preceding year.

No lines of transportation have been established or abandoned during the year.

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## U U 2.

Deep-Water Harbor at San Pedro Bay, California.

The construction of the breakwater was continued during the year, under contract dated June 7, 1900, with the California Construction Company, of San Francisco, Cal.

At the beginning of the fiscal year 645,149 tons of substructure stone had been delivered, 4,016 feet of the substructure at its westerly end had been practically completed, and stone had been deposited for a distance of 350 feet farther.

During the year 149,274 tons of sandstone from Chatsworth Park quarry was placed in the hearting of the substructure and covered with 324,360 tons of granite from Declez quarry, a total for the substructure of 473,634 tons; the practically completed substructure has been extended 1,699 feet, or to a distance of 5,715 feet from its westerly end, and stone has been deposited for a distance of 350 feet farther; 95 bents, or 1,513 feet, of double-track trestle has been built, and 21,242 tons of granite from Casa Blanca quarry has been delivered and placed in the superstructure. The superstructure was begun at a distance of 632 feet from the westerly end of the breakwater, and has been extended eastward a distance of 678 feet on the ocean side and 735 feet on the harbor side.

At the beginning of the fiscal year the contractors were behind the requirements of the specifications in amount of stone delivered; this deficiency has been made up, and at the close of the year they are about two months in advance of the requirements.

Enough breakwater already has been constructed to serve as a partial protection in stormy weather.

2174 Report of the Chief of Engineers, U. S. Army.

The total amount expended on this work to June 30, 1903, is $959,436.92.

The available balance, together with any additional appropriations, should be expended in extending the breakwater under contract and for contingencies.

Money statement.

| | |
|---|---|
| July 1, 1902, balance unexpended | $533,546.61 |
| Proceeds sale of condemned engineer property | .05 |
| Amount appropriated by sundry civil act approved March 3, 1903 | 500,000.00 |
| | 1,033,546.66 |
| June 30, 1903, amount expended during fiscal year | 421,454.29 |
| July 1, 1903, balance unexpended | 612,092.37 |
| July 1, 1903, outstanding liabilities | 40,573.75 |
| July 1, 1903, balance available | 571,518.62 |
| July 1, 1903, amount covered by uncompleted contracts | 1,664,627.42 |
| Amount (estimated) required for completion of existing project | 1,093,108.85 |
| Amount that can be profitably expended in fiscal year ending June 30, 1905, in addition to the balance unexpended July 1, 1903 | 500,000.00 |
| Submitted in compliance with requirements of sundry civil act of June 4, 1897. | |

Amount and Date of All Appropriations for the Work.

| | |
|---|---|
| June 3, 1896 | $50,000.00 |
| July 1, 1898 | 400,000.00 |
| March 3, 1899 | 200,000.00 |
| March 3, 1901 | 146,000.00 |

| | |
|---|---|
| June 28, 1902 | 311,085.00 |
| March 3, 1903 | 500,000.00 |
| Total | 1,607,085.00 |
| Received from sale of property | .05 |
| Total | 1,607,085.05 |

Abstract of All Contracts in Force.

Contract for construction of breakwater.

Name of contractor: California Construction Company.

Rates:

For substructure stone, $0.884 per ton of 2,240 pounds.

For superstructure stone, $3.10 per ton of 2,240 pounds.

For concrete, $6 per cubic yard.

Date of approval: June 27, 1900.

Date of beginning work: August 4, 1900.

Date of expiration: Indefinite, depending on appropriations made by Congress.

Commercial Statistics for Year Ending December 31, 1902.

For commercial statistics see report of Wilmington Harbor, California.

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*Of the appropriation of $50,000 made by river and harbor act of June 3, 1896, for deep-water harbor at Santa Monica Bay, or San Pedro Bay, California, $35,555.76 was expended by the Board provided for by said act. For the full report of the Board, with its accompanying documents, see Senate Document No. 18, Fifty-fifth Congress, first session.

## U U 3.

## IMPROVEMENT OF WILMINGTON HARBOR, CALIFORNIA.

The river and harbor act of June 13, 1902, appropriated $250,000 for improving this harbor, the work to consist of dredging a channel 20 feet deep and 400 feet wide from the ocean to the lower end of the wharves, to 24 feet depth between harbor lines from the lower to the upper end of the wharves, and a turning basin 1,600 feet in diameter between the upper end of the wharves and the lower end of Mormon Island; the repair of the east jetty; and the construction of a dike to divert the water of the Los Angeles River from flowing into the harbor. The construction or purchase of a suitable dredge was also authorized. The $50,000 appropriated by river and harbor act of June 3, 1896, was also made available for this work.

On October 2, 1902, an agreement was made with F. D. Lanterman for the repair of the east jetty at a point directly behind the wharf of the Salt Lake Railroad Company, as shown on the accompanying map. This work was completed November 21, 1902, at a cost of $3,564.69; 1,563.46 tons of stone was delivered, at a cost of $2.28 per ton, and 320 feet of jetty was repaired.

On November 24, 1902, a contract was entered into with Raymond A. Perry, of Oakland, Cal., for $100,000 worth of dredging, to be distributed over localities where it was thought the greatest benefit to commerce would at once accrue. This work was urgently needed, as the commerce of the harbor was far in advance of the accomodations.

Owing to the difference in character of the material to be handled, the work was divided into two divisions. Division A comprises the dredging for 1,400 feet of the channel at the entrance of the harbor. Material here consists of a stiff dark mixture of clay and sand, having an odor of petroleum, beds of cobble, and fragmental rock. The contract calls for the dredging of 120,000 cubic yards of material, at a cost of 50 cents per cubic yard. Work was begun February 21, 1903, with a hydraulic cutter dredge, having 20-inch suction and discharge, and continued at different intervals for a total of forty-eight days; 19,146 cubic yards was removed and placed behind a new bulkhead built by the Southern Pacific Railroad Company from the southerly end of their wharf to the angle in the west jetty. On account of the hard material and the swell at the entrance, it was found impracticable to continue work in this division with the hydraulic dredge, and work has been suspended until a dipper dredge can be procured. Little or no benefit to commerce has been derived from the dredging so far accomplished in this division, as no cut was carried through to deep water.

Over the area dredged, as shown on the accompanying map, the average cut was 3.6 feet, and the bottom was lowered to a mean depth of 20.2 feet below mean lower low water.

Work in division B was begun March 16, and continued until the close of the fiscal year, except when dredging was in progress in division A, and with only slight delays

on account of repairs; 104,589 cubic yards of material was removed, consisting principally of sand and soft mud, but also containing shells, old junk, and a few cobbles. Of the material removed, 63,016 cubic yards was placed behind the new bulkhead of the Southern Pacific Railroad Company, 27,854 cubic yards on Terminal Island above high water, and the remainder on Smiths Island.



The areas dredged in division B are shown on the accompanying map. In front of the wharves the channel is dredged to a depth of 18 to 20 feet, and the approaches to the wharves to a depth of 16 feet. The cuts varied in depth from 1 to about 14 feet.

During the year plans and specifications were made for the construction of a suction dredge to be operated by the Government, and proposals for the construction of same were invited by advertisement of June 24, 1903.

The total amount expended to June 30, 1903, is $978,418.14.

The available channel depth has increased to 15.6 feet, which is the maximum draft that can be carried, at mean lower low water, over the shoalest part of the bar at the entrance to the harbor.

The available balance, together with any additional appropriations, should be expended in the construction and operation of the dredge.

Money statement.

| | |
|---|---|
| July 1, 1902, balance unexpended | $300,502.32 |
| June 30, 1903, amount expended during fiscal year | 23,920.46 |
| July 1, 1903, balance unexpended | 276,581.86 |
| July 1, 1903, outstanding liabilities | 9,676.08 |
| July 1, 1903, balance available | 266,905.78 |
| July 1, 1903, amount covered by uncompleted contracts | 16,323.29 |
| Amount (estimated) required for completion of existing project | 249,497.68 |
| Amount that can be profitably expended in fiscal year ending June 30, 1905, in addition to the balance unexpended July 1, 1903 | 75,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897.

Amount and Date of All Appropriations for the Work.

| | | | |
|---|---|---|---|
| March 3, 1871 | $200,000 | July 5, 1884 | $50,000 |
| June 10, 1872 | 75,000 | August 5, 1886 | 75,000 |
| March 3, 1873 | 150,000 | August 11, 1888 | 90,000 |
| March 3, 1875 | 30,000 | September 19, 1890 | 34,000 |
| June 18, 1878 | 20,000 | July 13, 1892 | 51,000 |
| March 3, 1879 | 12,000 | June 3, 1896 | 50,000 |
| June 14, 1880 | 35,000 | June 13, 1902 | 250,000 |
| March 3, 1881 | 33,000 | | |
| August 2, 1882 | 100,000 | Total | 1,255,000 |

Abstract of All Contracts in Force.

Contract for dredging.

Name of contractor: Raymond A. Perry.

Rates:

In division A, 50 cents per cubic yard.

In division B, 16 cents per cubic yard.

Date of approval: December 11, 1902.

Date of beginning work:

In division A, February 14, 1903.

In division B, March 16, 1903.

Date of expiration:

In division A, October 14, 1903.

In division B, November 26, 1903.

[For copy of map attached to report see page 27 Book of Exhibits.]

Appendix U U—Report of Major Willard. 2177

Commercial Statistics for the Year Ending December 31, 1902.

[Furnished by the collector of customs at Los Angeles, Cal.]

| | Incoming | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 668 | 668 |
| Sailing | 297 | 297 |
| Total | 965 | 965 |

| | | | |
|---|---|---|---|
| Tonnage | | 576,334 | 18,814 |
| Draft, greatest | feet | 19.5 | 19.5 |
| Merchandise, general | tons | 17,398 | 13,394 |
| Lumber | feet | 279,467,983 | ——— |
| Crude oil | barrels | ——— | 32,516 |

Total amount of freight entered and cleared in 1902, 595,148 tons, an increase of 22 per cent over the preceding year.

No lines of transportation have been established or abandoned during the year.

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Report of Mr. R. A. Crawford, Assistant Engineer.

San Pedro, Cal., July 6, 1903.

Major: I have the honor to submit a report of operations covering the improvement work in harbor of Wilmington, Cal., during the fiscal year ending June 30, 1903.

The work comprised care of plant, repair of east jetty, dredging, surveys, and designing of dredge suitable for handling the general run of material to be found in this district.

Plant.—The plant and property belonging to this work were given proper care and attention.

Repair of east jetty.—The old wooden single work for 260 feet south of the point where the San Pedro, Los Angeles and Salt Lake Railroad tracks cross it, near lower end of Terminal Island, being in an advanced stage of decay, and the adjoining 60 feet of stone jetty on the

south considerably below grade, an agreement was made with F. D. Lanterman, October 2, to reenforce it with a stone fill on both sides, the east side to have a width of 5 feet on top with an outer slope of 1 on 2, and the west side to have a width of 3 feet on top with a side slope of 1 on 1½. Work was begun October 17 and completed November 21; 1,563.46 tons of stone were delivered in accordance with the terms of the agreement, covering a total of 320 linear feet, as shown on accompanying map.

Dredging.—Under the approved project for dredging the inner harbor, a formal contract was entered into with Ramond A. Perry, November 24, 1902, for $100,000 worth of dredging to be distributed over localities where the greatest benefit to commerce would at once accrue. Owing to the difference in character of the materials to be handled the work was classed under two divisions with a view to separating the harder from the easier dredging and obtaining a price per cubic yard for the removal of each kind, as there was a much larger percentage of the latter than the former.

Division A comprises the hard dredging, and extends 1,400 linear feet south from a line normal to the project lines and distant 600 feet north from a line parallel to it and passing through the Coast and Geodetic Survey station on Deadmans Island. In Division B the easier dredging is found, and this comprises everything north of the above-described north line of Division A. The line separating these two divisions was determined by borings.

According to the terms of the contract, $60,000 is to be expended in Division A, and the price for the removal of the material is 50 cents per cubic yard. In Division B $40,000 is to be expended, at a cost of 16 cents per cubic yard. Work was begun February 21 in Division A by the dredge Olympian, a hydraulic cutter dredge with 20-inch suction and discharge, and continued at different intervals for a total of forty-eight days. On account of the hard materials encountered, consisting principally of stiff, dark mixture of clay and sand having a petroleum odor, beds of cobbles, and a few fragmental rock; also, on account of several delays caused by collisions with passing vessels and breaking spuds, very slow progress was made. On May 17, after



having broken five spuds in trying to hold the dredge in a working position, due to excessive swell and strong tides, permission was granted the contractor temporarily to suspend operations in this division, upon a statement from him that a dredge more suitable for the work in hand had been procured and would begin operations early in July. In the meantime the Olympian was to push to completion the work outlined in Division B.

There were removed in Division A 19,146 cubic yards of material, all of which was placed behind the new bulkhead of the Southern Pacific Railroad Company. Little or no benefit to commerce has been derived from the

dredging so far accomplished in this division, as no cut was continuously carried through. Over the area dredged, as shown on accompanying map, the bottom was lowered a mean depth of 3.60 feet to a mean elevation of 20.2 feet below mean low water.

Work in Division B was begun March 16, and continued until the close of the fiscal year, except when dredging was in progeess in Division A, with only such slight delays as arose on account of repairs; 104,589 cubic yards of material were removed, consisting principally of sand and soft mud, but containing shells, old junk, and a few cobbles. Of the material removed, 63,016 cubic yards were placed behind the new bulkhead of the Southern Pacific Railroad Company, 27,854 cubic yards on the bar adjoining Terminal Island, and the remainder on Smiths Island.

The areas dredged in Division B are shown on the accompanying map. The following table shows the extent of work in the several localities and what was accomplished:

| Location of cut. | Length | Width. | Least depth before dredging. | Greatest depth before dredging. | Mean depth before dredging. | Least depth after dredging. | Greatest depth after dredging. | Mean depth after dredging. | Mean cut. |
|---|---|---|---|---|---|---|---|---|---|
| | Feet. | Feet. | Feet. | Feet. | Feet. | Feet. | Feet. | Feet. | Feet. |
| Approach to wharf of S. P., L. A. & S. L. R. R. | 700 | 75 | 8.4 | 16.3 | 13.01 | 14.2 | 20.2 | 17.13 | 4.12 |
| Along wharf of S. P., L. A. & S. L. R. R. | 900 | 100 | 7.7 | 16.3 | 13.73 | 19.2 | 23 | 21.14 | 7.41 |
| Along wharf of S. P. R. R. | 200 | 75 | 17 | 19.5 | 17.82 | 18.3 | 21.2 | 20.14 | 2.32 |
| Along wharfs of S. P. R. R. and Banning Co. | 1,100 | 75 | 6.1 | 17.9 | 15.09 | 18.1 | 21.9 | 20.13 | 5.04 |
| Along wharf of Southern California Lumber Co. and approach | 850 | 75 | 7.8 | 15.4 | 13.17 | 18.6 | 21.9 | 20.08 | 6.91 |
| Along wharf of Crescent Coal Co. | 300 | 100 | 10.7 | 17.2 | 13.27 | 18.5 | 21.2 | 20.04 | 6.77 |
| Approach to wharf of Crescent Coal Co. | 200 | 75 | 11.1 | 15.8 | 13.66 | 15.1 | 17.6 | 16.66 | 3.00 |
| Along northern portion wharf San Pedro Lumber Co. | 830 | 75 | 10.2 | 17.5 | 14.88 | 18.4 | 22 | 20.53 | 5.65 |

The shoalest part of the entrance to the harbor at the close of the fiscal year was the hard lump in Division A in mid-channel west of the east jetty and about abreast of its southern extremity. The maximum draft that could be carried over this lump June 30 was 15.6 feet at mean low water; the usual variation of level of water surface for this locality is 5.1 feet.

Surveys.—A hydrographic survey extending from the entrance to the harbor to the upper end of the wharves was made in January for the purpose of allotting the amount of dredging that could be done in the different localities under the contract made with Raymond A. Perry.

New dredge.—In accordance with the approved project for the improvement of the harbor, which authorizes the purchase of a suitable dredge for continuing this work, proposals are being invited until July 24, 1903, on general plans designed in this office for furnishing and delivering at San Pedro, Cal., a hydraulic dredge with cutter, having a 20-inch suction and discharge, and capable on test of removing 500 cubic yards per hour of the average material to be found in the inner harbor; the dredge to be equipped with modern machinery and to have a machine shop in which all general repairs can be made.

Very respectfully, your obedient servant,

R. A. Crawford,
Assistant Engineer.

Maj. J. H. Willard,
Corps of Engineers.

## U U 4.

Improvement of San Luis Obispo Harbor, California.

A contract for continuing the construction of the breakwater under an appropriation of $50,000 made by the river *an* harbor act of June 13, 1902, was entered into with A. A. Polhamus, of San Diego, Cal., at $1.86 per ton, of 2,000 pounds, of stone. Work under this contract began April 25, 1903, but owing to the continued rough weather only 4,711 tons has been delivered. This stone was placed at the outer end of the breakwater, along a stretch 300 feet long, beginning at a point 700 feet from Whaler Island, and in such manner as to give as much protection as possible to the stone barges unloading alongside of the breakwater.

The total amount expended on the construction of this breakwater up to June 30, 1903, is $231,312.48.

The available balance, together with any additional appropriations, should be expended in extending the breakwater under contract and for contingencies.

Money statement.

| | |
|---|---|
| July 1, 1902, balance unexpended | $51,200.94 |
| Proceeds sale of condemned engineer property | .95 |
| | 51,201.89 |
| June 30, 1903, amount expended during fiscal year | 2,513.42 |
| July 1, 1903, balance unexpended | 48,688.47 |

| | |
|---|---|
| July 1, 1903, outstanding liabilities | 6,710.98 |
| July 1, 1903, balance available | 41,977.49 |
| July 1, 1903, amount covered by uncompleted contracts | 39,503.12 |
| Amount (estimated) required for completion of existing project | 288,660.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1905, in addition to the balance unexpended July 1, 1903 | 100,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897.

Amount and Date of All Appropriations for the Work.

| | |
|---|---|
| August 11, 1888 | $25,000.00 |
| September 19, 1890 | 40,000.00 |
| July 13, 1892 | 30,000.00 |
| August 18, 1894 | 40,000.00 |
| June 3, 1896 | 40,000.00 |
| March 3, 1899 | 55,000.00 |
| June 13, 1902 | 50,000.00 |
| Total | 280,000.00 |
| Received from sale of property | .95 |
| Total | 280,000.95 |

Abstract of All Contracts in Force.

Contract for continuing construction of breakwater.
Name of contractor: A. A. Polhamus.
Rate: $1.86 per ton, of 2,000 pounds, of stone.
Date of approval: March 20, 1903.
Date of beginning work: May 25, 1903.
Date of expiration: November 25, 1903.

---

Commercial Statistics for the Year Ending December 31, 1902.

[Furnished by the Pacific Coast Railway Company.]

| | | Incoming | Outgoing. |
|---|---|---|---|
| Vessels: | | | |
| Steam | | 218 | 218 |
| Sailing | | 2 | 2 |
| Total | | 220 | 220 |
| Tonnage | | 16,791 | 38,916 |
| Draft, greatest | feet | 19 | 19 |
| Merchandise, general | tons | 5,712 | 1,523 |
| Coal | do | 148 | ..... |
| Lumber | feet | 5,358,314 | ..... |
| Grain | tons | 197 | 34,771 |
| Bituminous rock | do | ..... | 2,163 |
| Dairy products | do | 17 | 457 |
| Live stock | do | 1 | 2 |

Total amount of freight entered and cleared in 1902, 55,707 tons, an increase of 36 per cent over that for 1901.

No lines of transportation have been established or abandoned during the year.

[Stamped]: Drafting Room File

UNITED STATES [Emblem] OF AMERICA
WAR DEPARTMENT

Washington, November 15, 1930.

I hereby certify that the attached pamphlet is a true copy of an extract from the Annual Report of the Chief of Engineers for 1903, on file in the Office of the Chief of Engineers, United States Army.

Lytle Brown
Lytle Brown,
Major General,
Chief of Engineers.
B.W.

I hereby certify that Lytle Brown, who signed the foregoing certificate, is the Chief of Engineers, United States Army, and that to his certification as such full faith and credit are and ought to be given.

In testimony whereof I, Patrick J. Hurley, Secretary of War, have hereunto caused the Seal of the War Department to be affixed and my name to be subscribed by the Assistant and Chief Clerk of the said Department, at the City of Washington this —18th— day of November, 1930.

[Seal]

Patrick J. Hurley
Secretary of War.
By John C. Scofield
Assistant and Chief Clerk.

No. Q-12-J. City of LA vs. Borax Plf Exhibit No. 24 Filed 11/14 1933 R. S. Zimmerman, Clerk, By Cross Deputy Clerk.

ANNUAL REPORT

upon the

IMPROVEMENT OF HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO,

in the charge of

J. H. WILLARD,

Lieut. Col., Corps of Engineers, U. S. A.,

and

C. H. McKINSTRY,

Captain, Corps of Engineers, U. S. A.;

being

APPENDIX S S

of the

Annual Report of the Chief of Engineers for 1904.

WASHINGTON:

Government Printing Office.

1904.

[Stamped]: Drafting Room File

[EXTRACT FROM THE ANNUAL REPORT OF THE CHIEF OF ENGINEERS TO THE SECRETARY OF WAR.]

Office of the Chief of Engineers,
United States Army,
Washington, September 28, 1904.

* * * * * * *

## IMPROVEMENT OF HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO

This district was in the charge of Lieut. Col. J. H. Willard, Corps of Engineers, until November 30, 1903, and of Capt. C. H. McKinstry, Corps of Engineers, since

that date. Division engineer, Col. D. P. Heap, Corps of Engineers.

1. San Diego Harbor, California.—San Diego Harbor is just north of the national boundary of Mexico and 482 nautical miles south of San Francisco.

The river and harbor act approved March 3, 1875, appropriated $80,000 for the construction of a dike across the mouth of San Diego River, causing it to empty into False Bay and thus preventing San Diego Harbor from bring injured by the deposit of material brought down during flood stages. This work was completed in 1876, at a cost of $79,798.72, which, with the cost of repairs made up to the time of adoption of the present project, brought the total of expenditures to $81,918.45.

The present project for the improvement of the harbor, adopted by the river and harbor act approved September 19, 1890, provides for the construction of a jetty on Zuninga shoal, at the entrance to the harbor; the maintenance of a channel 24 feet deep at mean low tide and 500 feet wide through the middle ground, and for repairs to restraining dike. The jetty was to be about 7,500 feet long, extending from North Coronado Beach Island out on Zuninga shoal, with a view of gaining 26 feet at mean low tide on the outer bar.

At the time of the adoption of this project the governing depth on the bar was 21 feet. Just inside the entrance was a "middle ground" carrying but 17 feet of water. The main channel, lying to the west of the middle ground, was of ample depth, but was difficult of navigation on account of two sharp turns.

The original estimated cost of this improvement was $394,400, but as work on the inner half of the jetty

progressed under the different contracts it became evident that this sum would be inadequate. Therefore, under date of June 20, 1900, the local officer was authorized to change this estimated cost to $442,850.

The appropriation of $192,850 in the sundry civil act of March 3, 1903, brought the total of appropriations up to the amount of the revised estimate.

632 Report of the Chief of Engineers, U. S. Army.

The amount expended on the present project up to the close of the fiscal year ending June 30, 1904, is $487,-563.01. Of this $4,913.58 was applied to maintenance, viz, to repairing the restraining dike. Further repairs to this dike have been made by the city of San Diego.

The jetty has been extended to its full contemplated length of 7,500 feet; a channel 26 feet deep and 271 feet wide (28 feet deep over a width of 171 feet) has been dredged across the outer bar; and the dredging of a channel 26 feet deep and 500 feet wide across the middle ground is in progress. At the close of the fiscal year the latter channel had reached a width of 200 feet. The work on the jetty is under continuing contract.

The maximum draft that could be carried into San Diego Harbor on June 30, 1904, at mean lower low water was 28 feet; by way of the middle ground, 26 feet. The average height of all high waters above the plane of reference is 4.8 feet. The increase of depth on the outer bar amounts to 7 feet, though the bar channel is narrow; the increase of depth on the middle ground amounts to 9 feet.

The effect of this work of improvement will be to make the entrance of deep-draft vessels into this harbor easy and safe.

Since the completion of the bar channel a considerable number of vessels have entered, drawing more water than was available before that channel was dredged.

It is estimated that to maintain the bar channel and the channel across the middle ground will cost $15,000 annually.

The commerce of this harbor was 131,706 tons for the calendar year 1903, an increase of 25 per cent over that of the previous year. In character the commerce is unchanged since the preceding year. It consists principally of lumber, general merchandise, coal, and cement received; and of lumber, general merchandise, and grain shipped.

Reports on examinations and surveys will be found in Annual Reports of the Chief of Engineers as follows: For the year 1870, page 511; 1872, page 998; 1873, page 1142; 1874, page 372, Part 2; 1887, page 2433; 1888, page 2114.

| | |
|---|---|
| July 1, 1903, balance unexpended | $265,776.08 |
| October 12 and 22, 1903, refundment by division engineer on account purchase of unlimited railroad ticket | 3.26 |
| | 265,779.34 |
| June 30, 1904, amount expended during fiscal year for works of improvement | 209,907.54 |
| July 1, 1904, balance unexpended | 55,871.80 |
| July 1, 1904, outstanding liabilities | 23,822.47 |
| July 1, 1904, balance available | 32,049.33 |
| July 1, 1904, amount covered by uncompleted contracts | 28,073.04 |

| | |
|---|---|
| Amount that can be profitably expended in fiscal year ending June 30, 1906, for maintenance of improvement, in addition to the balance unexpended July 1, 1904.... | 10,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897, and of section 7 of the river and harbor act of 1899.

(See Appendix S S 1.)

2. Deep-water harbor at San Pedro Bay, California.—The river and harbor act of June 3, 1896, provided for the appointment of a



Board to determine upon the location of a deep-water harbor for commerce and for refuge in Santa Monica Bay, California, or at San Pedro, in the same State, the decision of a majority of the Board as to location to be final. The Board was to make plans, specifications, and estimates for said improvement. After the Board should have rendered its decision and submitted its report the Secretary of War was empowered to make contracts for the completion of the selected harbor in accordance with the project of the Board, at a cost not exceeding in the aggregate $2,900,000.

In accordance with the provisions of this act a Board was appointed, which submitted its report March 1, 1897, deciding in favor of San Pedro Bay. The report of the Board is printed in Senate Document No. 18, Fifty-fifth Congress, first session.

The plan of the Board (the present project of improvement) is to construct, to the eastward of Point Fermin, a breakwater about 8,500 feet in length. In

plan the breakwater is to consist of two straight arms connected by a curve 1,800 feet in length, of 1,910 feet radius. The westerly arm is to be 3,000 feet long, pointing S. 72° E. (magnetic); the easterly arm 3,700 feet long, pointing N. 54° E. (magnetic). A gap of about 2,000 feet is to be left between the east shore of Point Fermin and the westerly end of the breakwater.

Originally San Pedro Bay was an open roadstead exposed to southeasterly, southerly, and southwesterly winds. The effect of the breakwater will be to afford a place of refuge, easy of access, and secure from storms, for vessels of the largest size. It will also shelter the entrance to the inner harbor of San Pedro.

On August 12, 1898, a continuing contract was entered into with Heldmaier & Neu, of Chicago, Ill., for the construction of the breakwater, for $1,303,198.54. This contract was annulled on March 19, 1900, on account of unsatisfactory progress. Up to that time 84,581 tons of stone had been placed in the substructure, at a cost, including inspection, etc., of $51,537.43.

On June 7, 1900, a continuing contract for completing the breakwater was entered into with the California Construction Company, of San Francisco, Cal. The estimated cost of work under this contract, using the quantities on which bids were canvassed and the prices bid for stone and concrete, and allowing 10 per cent for engineering expenses and contingencies, is $2,613,100.66, in addition to expenditures under the former contract.

The amount expended under the project up to the close of the fiscal year ending June 30, 1904, is $1,397,681.09.

Work was begun at the westerly end of the substructure. Up to June 30, 1904, 1,566,093 long tons of stone,

at $0.844 per ton, had been deposited in the substructure under the present contract, and the substructure was about completed for a distance of 7,284 feet, and some stone had been deposited for a further distance of 416 feet.

The superstructure was begun at a distance of 636 feet from the westerly end, and is being built to the eastward. To June 30, 1904, 43,276 tons of stone had been placed in the superstructure, which was partially completed for a length of 1,919 feet.

During the fiscal year 442 vessels anchored in the lee of the breakwater. The protected area is used by vessels which have to lighter a part of their cargo or have to await a favorable tide before they can

634 Report of the Chief of Engineers, U. S. Army.

enter the inner harbor. The effect of continuing work under the existing project will be to enlarge the protected area and to increase the shelter afforded the entrance to the inner harbor.

For commercial statistics see report on Wilmington Harbor. There are, as yet, no commercial wharves in the outer or breakwater harbor.

Reports on examinations and surveys will be found in Senate Document No. 18, Fifty-fifth Congress, first session, and in Annual Reports of the Chief of Engineers as follows: For the year 1888, page 2122; 1892, page 2631; 1893, page 3238.

| | |
|---|---|
| July 1, 1903, balance unexpended | $612,092.37 |
| Amount appropriated by sundry civil act approved April 28, 1904 | 350,000.00 |
| | 962,092.37 |
| June 30, 1904, amount expended during fiscal year for works of improvement | 438,244.17 |
| June 1, 1904, balance unexpended | 523,848.20 |
| July 1, 1904, outstanding liabilities | 69,700.95 |
| July 1, 1904, balance available | 454,147.25 |
| July 1, 1904, amount covered by uncompleted contracts | 1,197,256.05 |
| Amount (estimated) required for completion of existing project | 743,108.80 |
| Amount that can be profitably expended in fiscal year ending June 30, 1906, for works of improvement, in addition to the balance unexpended July 1, 1904 | 400,000.00 |
| Submitted in compliance with requirements of sundry civil act of June 4, 1897. | |

(See Appendix S S 2.)

3. Wilmington Harbor California.—Wilmington is situated at the head of a small estuary which has its outlet in the bay of San Pedro, and is 393 nautical miles to the southward of San Francisco.

Previous to the commencement of the improvement, in 1871, there was a depth of less than 2 feet of water at low tide at the entrance.

The original project, approved July 1, 1871, contemplated gaining a depth of 10 feet at mean low tide. This depth was obtained in 1881, at a cost of $555,000, when a further project to increase depth of channel from 10 to 15 feet at mean low tide by dredging a reef between the jetties, raising existing works, and extending the jetties to 18 feet of water in San Pedro Bay, was submitted. This project was completed in 1893, at a cost of $399,497.68.

The river and harbor act of June 3, 1896, appropriated $50,000 for improving the harbor in accordance with a project submitted in 1894 for a channel depth of 18 feet at mean low tide, at an estimated cost of $392,725. Owing to certain provisos, however, this money was not available without further action by Congress.

The present project was adopted by the river and harbor act of June 13, 1902, and contemplates providing a channel 20 feet deep and 400 feet wide from the outer harbor to the foot of the wharves; and 24 feet deep between harbor lines from the foot of the wharves to and including a turning basin 1,600 feet in diameter just below Mormon Island. It also provides for repairs to the east jetty and for the construction of a dike to divert the waters of the Los Angeles River from Wilmington Lagoon. The same act made available the $50,000 appropriated by the act of June 3, 1896.

Changed conditions have rendered the building of the dike inadvisable.



The estimated cost of the work called for by the present project, including the procurement of a dredge, is $550,000.

The amount expended under the existing project to June 30, 1904, is $108,815.65.

Repairs have been made to the east jetty at a cost of $3,700. Dredging to the depth of 21 feet has been done along the greater part of the dock front of San Pedro and East San Pedro, and dredging to the depth of 20 feet is now in progress at the entrance.

Work under the various projects above mentioned has resulted in increasing the depth at the entrance from 2 to slightly more than 18 feet, which is the maximum draft that could be carried into the inner harbor June 30, 1904, at mean lower low water. The average rise of the tides above this plane of reference is 5.1 feet.

For the calendar year 1903 the commerce of this port amounted to 769,404 tons, an increase of 30 per cent over the preceding year. In character the commerce is unchanged since the previous year. It consists principally of lumber, oil, and general merchandise received, and of general merchandise and oil shipped.

Reports on examinations and surveys will be found in Annual Reports of the Chief of Engineers, as follows: For the year 1869, page 479; 1871, page 939; 1894, page 2511; 1900, page 4187.

| | |
|---|---|
| July 1, 1903, balance unexpended | $276,582.86 |
| June 30, 1904, amount expended during fiscal year for works of improvement | 84,895.19 |
| July 1, 1904, balance unexpended | 191,687.67 |

| | |
|---|---|
| July 1, 1904, outstanding liabilities | 10,792.50 |
| July 1, 1904, balance available | 180,895.17 |
| July 1, 1904, amount covered by uncompleted contracts | 103,484.42 |
| Amount (estimated) required for completion of existing project | 249,496.68 |
| Amount that can be profitably expended in fiscal year ending June 30, 1906, for works of improvement, in addition to the balance unexpended July 1, 1904 | 100,000.00 |
| Submitted in compliance with requirements of sundry civil act of June 4, 1897. | |

(See Appendix S S 3.)

4. San Luis Obispo Harbor, California.—San Luis Obispo Harbor is 9 miles to the southward and westward of the town of San Luis Obispo and 216 nautical miles from San Francisco.

It is a bight of the coast about 18 miles long between Point San Luis on the north and Point Sal on the south. The upper end, where Port Harford is situated, has a wharf and is the part used for commercial purposes. Whaler reef, extending nearly half a mile to the southward and eastward of Point San Luis, forms more or less of a natural breakwater, but during the winter season the landing was exposed to the heavy swell caused by southerly gales.

The original project was adopted by the river and harbor act of August 11, 1888, and provided for the con-

struction on Whaler reef of a breakwater of rubble stone rising to mean lower low water and extending from Point San Luis to Whaler Island and thence to a point where the outer reef rises above high water Exclusive of Whaler

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* Erroneously reported last year as $276,581.86.



Island, which is 245 feet long, the breakwater was to have a length of about 1,736 feet, and its estimated cost was $284,898.

This project was modified January 17, 1893, to provide for raising the structure to the height of 6 feet above mean high water, with a top width of 20 feet, and such side slopes as might be formed under the action of the sea. The estimated cost was increased to $568,660. This is the existing project.

The breakwater has been built to full section from Point San Luis to Whaler Island and for 1,160 feet beyond Whaler Island, or a total distance of 1,741 feet, including the island. The partially protected area has an available depth of 21 to 27 feet at low water and there is 22 feet at the Port Harford wharf. The result has been to give increased security to vessels in the anchorage and at the landing. Further work under the project will afford increased shelter.

The amount expended on this work up to the close of the fiscal year ending June 30, 1904, is $279,333.56.

In character the commerce is unchanged since the preceding year, consisting principally of lumber and general merchandise received, and grain shipped. Its volume for 1903, 60,291 tons, exceeds that for 1902 by 8.2 per cent.

Reports on examinations and surveys will be found in Annual Reports of the Chief of Engineers, as follows: For the year 1879, page 1765; 1881, page 2526; 1887, page 2433.

| | |
|---|---|
| July 1, 1903, balance unexpended | $48,688.47 |
| June 30, 1904, amount expended during fiscal year for works of improvement | 48,021.08 |
| July 1, 1904, balance unexpended | 667.39 |
| Amount (estimated) required for completion of existing project | 288,659.05 |
| Amount that can be profitably expended in fiscal year ending June 30, 1906, for works of improvement, in addition to the balance unexpended July 1, 1904 | 65,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897.

(See Appendix S S 4.)

Examinations Made in Compliance With River and Harbor Act Approved June 13, 1902.

Reports on preliminary examinations required by the river and harbor act approved June 13, 1902, of the following localities within this district were duly submitted by the local officer, through the division engineer, Col. D. P. Heap, Corps of Engineers, and they were reviewed by the

Board of Engineers for Rivers and Harbors pursuant to law.

1. Preliminary examination of Colorado River between Eldorado Canyon and Rioville, Nev., with a view to removing obstructions and deepening and rendering navigable the channel between said points.—Capt. Edgar Jadwin, Corps of Engineers, submitted report dated March 31, 1903. It is not considered advisable for the United States to undertake this improvement. The report was transmitted to Congress and printed in House Document No. 237, Fifty-eighth Congress, second session. (See also Appendix S S 5.)

2. Preliminary examination of Colorado River, Arizona, and California, from Yuma to the Mexican boundary line.—Captain Jadwin



submitted report dated January 22, 1903. The locality is not considered worthy of improvement by the United States. The report was transmitted to Congress and printed in House Document No. 204, Fifty-eighth Congress, second session. (See also Appendix S S 6.)

3. Preliminary examination of Santa Cruz Bay, California.—Captain Jadwin submitted report dated December 27, 1902. It is not considered desirable for the United States to undertake this improvement. The report was transmitted to Congress and printed in House Document No. 214, Fifty-eighth Congress, second session. (See also Appendix S S 7.)

* * * * * * *

## APPENDIX S S.

## IMPROVEMENT OF RIVERS AND HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO.

Report of Capt. C. H. M'Kinstry, Corps of Engineers, Officer in Charge, for the Fiscal Year Ending June 30, 1904, With Other Documents Relating to the Works.

Improvements.

1. San Diego Harbor, California.
2. Deep-water harbor at San Pedro Bay, California.
3. Wilmington Harbor, California.
4. San Luis Obispo Harbor, California.

Examinations.

5. Colorado River between Eldorado Canyon and Rioville, Nevada.
6. Colorado River, Arizona and California, from Yuma to the Mexican boundary line.
7. Santa Cruz Bay, California.

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United States Engineer Office,
Los Angeles, Cal., July 14, 1904.

General: I have the honor to forward herewith annual report on works of river and harbor improvement in my charge for the fiscal year ending June 30, 1904.

Very respectfully, your obedient servant.

C. H. McKinstry,
Captain, Corps of Engineers.

Brig. Gen. A. Mackenzie,
Chief of Engineers, U. S. Army.

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## S S 1.

Improvement of San Diego Harbor, California.

The jetty.—Under contract entered into April 1, 1903, with A. E. Babcock, 104,850 tons of stone was delivered during the fiscal year at a cost, including engineering and all other expenses, of $196,964.07. The total amount of stone to be delivered under this contract is 108,108 tons and the contract is about 95 per cent completed. The jetty has



been extended from station 45+95 to its full projected length of 7,500 feet.

Dredging outer bar.—Under contract dated November 20, 1902, with A. A. Polhamus, the work of dredging the outer bar was begun July 10, 1903, and was completed February 13, 1904, 123,567 cubic yards having been removed. The total cost of the work, including engineering and all other expenses, was $38,686.10. A channel 26 feet deep and 271 feet wide (28 feet deep over a width of 171 feet) was excavated. Soundings taken in June indicated no deterioration.

Dredging middle ground.—Under contract dated February 27, 1904, with A. A. Polhamus, for dredging the middle ground work was begun March 10, 1904, and was suspended April 16, 1904, the dredge having been run into and sunk by the State of California. Up to April 16, 1904, 34,343 cubic yards had been removed at a cost, including engineering and all other expenses, of $8,600.94. The result of this work was a channel 200 feet wide and 28½ feet deep, which has since shoaled to about 26 feet. It is expected that dredging will be resumed in July.

The available balance will be applied to the completion of the contracts now in force. Any additional funds appropriated should be applied to the maintenance of the channels through the outer bar and the middle ground.

Money statement.

| | |
|---|---|
| July 1, 1903, balance unexpended | $265,776.08 |
| October 12 and 22, 1903, refundment by division engineer on account purchase of unlimited railroad ticket | 3.26 |
| | 265,779.34 |
| June 30, 1904, amount expended during fiscal year, for works of improvement | 209,907.54 |
| July 1, 1904, balance unexpended | 55,871.80 |
| July 1, 1904, outstanding liabilities | 23,822.47 |
| July 1, 1904, balance available | 32,049.33 |
| July 1, 1904, amount covered by uncompleted contracts | 28,073.04 |

Amount that can be profitably expended in fiscal year ending June 30, 1906, for maintenance of improvement, in addition to the balance unexpended July 1, 1904.... 15,000.00

Submitted in compliance with requirements of sundry civil act of June 4, 1897, and of section 7 of the river and harbor act of 1899.

Amount and Date of All Appropriations for the Work Since 1875.

| | | | |
|---|---|---|---|
| March 3, 1875 | $80,000.00 | June 3, 1896 | $50,000.00 |
| March 3, 1879 | 1,000.00 | March 3, 1899 | 65,000.00 |
| August 11, 1888 | 1,000.00 | June 13, 1902 | 75,000.00 |
| September 19, 1890 | 60,500.00 | March 3, 1903 | 192,850.00 |
| July 13, 1892 | 50,000.00 | Total | 625,350.00 |
| August 18, 1894 | 50,000.00 | | |

Appendix S S—Report of Captain M'Kinstry. 3385

Abstract of All Contracts in Force.

Contract for dredging on outer bar.

Name of contractor: A. A. Polhamus.

Contract entered into November 20, 1902; approved December 4, 1902.

Work to begin July 10, 1903; contract to be completed November 11, 1903.

Contract for dredging 122,807 cubic yards, at 28½ cents per cubic yard.

Contract for completing jetty.

Name of contractor: A. E. Babcock.

Contract entered into April 1, 1903; approved April 18, 1903.

Work to begin June 26, 1903; contract to be completed December 26, 1904.

Contract for delivery of 108,108 tons (of 2,000 pounds each) of rubblestone, at $1.85 per ton.

Contract for dredging on middle ground.

Name of contractor: A. A. Polhamus.

Contract entered into February 27, 1904; approved March 10, 1904.

Work to begin May 14, 1904; contract to be completed November 2, 1904.

Contract for dredging 84,444 cubic yards, at 22½ cents per cubic yard.

Commercial Statistics for the year ending December 31, 1903.

[Furnished by the collector of customs at San Diego, Cal.]

| | Incoming. | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 191 | 189 |
| Sailing | 35 | 36 |
| Total | 226 | 225 |
| Tonnage | 194,824 | 67,330 |
| Draft, greatest....feet | 24½ | 24 |
| Lumber.....do | 19,486.000 | 440,000 |
| Merchandise.....tons | 16,547 | 12,829 |
| Coal.....do | 32,673 | 168 |
| Cement.....do | 22,463 | 92 |
| Ores.....do | 375 | 1,199 |
| Grain.....do | | 5,508 |

Total amount of freight entered and cleared in 1903, 131,706 tons, an increase of 25 per cent over that of the preceding year.

No lines of transportation have been established or abandoned during the year.

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S S 2.

## DEEP-WATER HARBOR AT SAN PEDRO BAY, CALIFORNIA

The construction of the breakwater was continued during the year, under continuing contract dated June 7,

1900, with the California Construction Company, of San Francisco, Cal.

At the beginning of the fiscal year 1,118,783 tons of stone had been deposited in the substructure, which had been raised to mean lower low water and was about completed for the length of 5,715 feet from its westerly end, and 21,242 tons had been placed in the superstructure, no part of which was completed.

During the fiscal year ending June 30, 1904, 134,072 tons of sandstone and 313,238 tons of granite, a total of 447,310 tons, was placed in the substructure, and 22,034 tons of stone in the superstructure.



This makes a total of 1,566,093 tons in the substructure, of 43,276 tons in the superstructure, and of 1,609,369 tons under the contract. During the fiscal year the double-track trestle was extended 1,666 feet, making its total length 7,876 feet.

The substructure is to mean lower low water and about completed for a length of 7,284 feet, and some stone has been deposited for the further distance of 416 feet. Work has been done on the superstructure over a length of 1,919 feet, commencing 636 feet from the westerly end of the breakwater. The amount of stone placed in the superstructure is equivalent to about 1,400 feet of completed work. So far as the rate of delivery is concerned the contractor is ahead of the requirements of the contract. The contract is about 61 per cent completed.

The work on the breakwater, particularly the substructure, has already advanced far enough to shelter, in

stormy weather, a large anchorage area and the entrance to the inner harbor.

The total amount expended on this work to June 30, 1904, is $1,397,681.09.

The available balance, together with any additional appropriations, should be expended in extending the breakwater under contract and for contingencies.

Money statement.

| | |
|---|---|
| July 1, 1903, balance unexpended | $612,092.37 |
| Amount appropriated by sundry civil act approved April 28, 1904 | 350,000.00 |
| | 962,092.37 |
| June 30, 1904, amount expended during fiscal year, for works of improvement | 438,244.17 |
| July 1, 1904, balance unexpended | 523,848.20 |
| July 1, 1904, outstanding liabilities | 69,700.95 |
| July 1, 1904, balance available | 454,147.25 |
| July 1, 1904, amount covered by uncompleted contracts | 1,197,256.05 |
| Amount (estimated) required for completion of existing project | 743,108.80 |
| Amount that can be profitably expended in fiscal year ending June 30, 1906, for works of improvement, in addition to the balance unexpended July 1, 1904 | 400,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897.

Amount and Date of All Appropriations for the Work.

| | |
|---|---|
| June 3, 1896 | *$50,000.00 |
| July 1, 1898 | 400,000.00 |
| March 3, 1899 | 200,000.00 |
| March 3, 1901 | 146,000.00 |
| June 28, 1902 | 311,085.00 |
| March 3, 1903 | 500,000.00 |
| April 28, 1904 | 350,000.00 |
| Total | 1,957,085.00 |
| Received from sale of property | .05 |
| Total | 1,957,085.05 |

*Of the appropriation of $50,000 made by river and harbor act of June 3, 1896, for deep-water harbor at Santa Monica Bay, or San Pedro Bay, California, $35,555.76 was expended by the Board provided for by said act. For the full report of the Board, with its accompanying documents, see Senate Document No. 18, Fifty-fifth Congress, first session.

Appendix S S—Report of Captain M'Kinstry. 3387

Abstract of All Contracts in Force.

Contract for construction of breakwater.

*Name of contractor:* California Construction Company.

Contract entered into June 7, 1900; approved June 27, 1900. Work to begin August 4, 1900; contract to be completed June, 1906, provided adequate appropriations are made by Congress.

Rates:

For substructure stone, $0.844 per ton of 2,240 pounds.

For superstructure stone, $3.10 per ton of 2,240 pounds.

For concrete, $6 per cubic yard.

Quantities (estimated):

Stone in substructure, 1,985,958 tons; stone in superstructure, 221,025 tons; total 2,206,983 tons.

Concrete, 2,370 cubic yards.

Total consideration of contract (approximate): $2,375,546.05.

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Commercial Statistics for Year Ending December 31, 1903.

For commercial statistics see report of Wilmington Harbor, California.

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S S 3.

## IMPROVEMENT OF WILMINGTON HARBOR, CALIFORNIA.

The dredge.—Contract was entered into October 17, 1903, with the Ellicott Machine Company, of Baltimore, Md., in the sum of $98,400, for the construction of a 20-inch suction dredge. Work on the hull was begun March 8, 1904, and at the close of the fiscal year all the work that could be done on the hull in advance of the installation of the machinery was completed. The greater part of the machinery has been delivered at San Pedro and the work of installation is in progress. The cost of the work on the dredge to June 30, 1904, was $23,094.

Pontons, discharge pipe, lumber, etc.—All lumber required for the construction of derrick lighter, oil barge,

water barge, and 24 discharge-pipe pontons has been ordered, and the greater part of it has been delivered. It is to cost $2,125.97. The following contracts have been entered into, viz., with H. E. Carse, May 6, 1904, for hardware required for construction of pontons, etc.; with Baker Iron Works, May 12, 1904, for furnishing 2,048 feet of 20-inch discharge-pipe and 4 elbows; with New Jersey Car Spring and Rubber Company, May 14, 1904, for furnishing 25 rubber sleeves; and with H. E. Carse, June 8, 1904, for furnishing gasoline launch, with 16-horsepower "Standard" engine. A part of the hardware contracted for has been delivered. At the close of the fiscal year the hull of the launch was about 50 per cent completed.

Dredging.—Under the contract entered into November 24, 1902, with Raymond A. Perry, of Oakland, Cal., 234,339 cubic yards of material was removed, 89,588 cubic yards from alongside Deadmans Island (division A) and 144,751 cubic yards from the entrance above Deadmans Island and from the inner harbor along the docks on either side (division B), at a cost, including engineering and all other expenses, of $72,886.61. There had been removed during the preceding fiscal year 19,146 cubic yards from division A and 104,589 cubic yards from division B. The total quantity removed under the contract is 358,074 cubic yards, and the contract is about 97 per cent completed. At the entrance the dredging is being carried to the depth of 20 feet. The



material is soft clay, hard clay, and fragmental rock. The map herewith shows the condition of the entrance

and inner harbor June 30, 1904. The dredging in division A has been accompanied by the scouring of the outer bar, which now carries slightly more than 18 feet of water, a gain of nearly 3 feet over the governing depth at the beginning of the fiscal year.

So far as material removed is concerned the dredging project is about 11 per cent completed. The project as a whole, including repairs to east jetty and construction of dredge, as well as dredging, is about 20 per cent completed.

One of the minor items of the present project is the building of a restraining dike to divert the Los Angeles River from Wilmington Lagoon. At the time the project was adopted it was believed that the channels in the upper end of the lagoon were being filled to a sensible extent by material brought down by the river when in flood. The lowering of the low-water plane, due to an increase in the sectional area of the harbor entrance, will partly account for apparent evidences of fill. The provisions for taking care of the flood waters by drawing them off for irrigation are becoming more perfect all the time, and the quantity of material brought down by the river is less, on the average, every year. To construct the dike in question would be to close the slough leading to Long Beach, a channel of little present importance, but one that it may prove desirable to improve at some future day. It will likewise mean placing a barrier to the future development of Wilmington Harbor. In order that sudden floods might not do damage, it would be necessary to make and to maintain a new mouth for the river, a difficult and expensive work on a sandy coast. The best and most economical plan seems to be to give up the dike and to remove,

by dredging from time to time, any material that may be deposited in the harbor channels. It is accordingly recommended that the project be modified by striking out the item calling for the building of this dike. (Authority for recommending modification of project is contained in Department indorsement of February 13, 1904.)

The amount expended under the existing project to June 30, 1904, is $108,815.65.

The available balance, together with additional appropriations, should be expended in completing the existing dredging contract, in constructing the dredge and its auxiliary floating plant, and in operating the dredge.

Money statement.

| | |
|---|---|
| July 1, 1903, balance unexpended | $276,582.86 |
| June 30, 1904, amount expended during fiscal year, for works of improvement | 84,895.19 |
| July 1, 1904, balance unexpended | 191,687.67 |
| July 1, 1904, outstanding liabilities | 10,792.50 |
| July 1, 1904, balance available | 180,895.17 |
| July 1, 1904, amount covered by uncompleted contracts | 103,484.42 |
| Amount (estimated) required for completion of existing project | 249,496.68 |
| Amount that can be profitably expended in fiscal year ending June 30, 1906, for works of improvement, in addition to the balance unexpended July 1, 1904 | 125,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897.

Amount and Date of All Appropriations for the Work.

| | | | |
|---|---|---|---|
| March 3, 1871 | $200,000 | August 11, 1888 | $90,000 |
| June 10, 1872 | 75,000 | September 19, 1890 | 34,000 |
| March 3, 1873 | 150,000 | July 13, 1892 | 51,000 |
| March 3, 1875 | 30,000 | June 3, 1896 | 50,000 |
| June 18, 1878 | 20,000 | June 13, 1902 | 250,000 |
| March 3, 1879 | 12,000 | | |
| June 14, 1880 | 35,000 | Total | 1,255,000 |
| March 3, 1881 | 33,000 | Received from sale of property | 1 |
| August 2, 1882 | 100,000 | | |
| July 5, 1884 | 50,000 | Aggregate | 1,255,001 |
| August 5, 1886 | 75,000 | | |

## ABSTRACT OF ALL CONTRACTS IN FORCE.

Contract for dredging.

Name of contractor: Raymond A. Perry.

Contract entered into November 24, 1902; approved December 11, 1902.

Work to begin in division A, February 14, 1903; in division B, March 16, 1903. Contract to be completed, for division A, October 14, 1903; for division B, November 26, 1903. Date of completion extended to September 14, 1904.

Contract for dredging 120,000 cubic yards at 50 cents per cubic yard in division A, and 250,000 cubic yards at 16 cents per cubic yard in division B.

Contract for construction of dredge.

Name of contractor: Ellicott Machine Company.

Contract entered into October 17, 1903; approved November 6, 1903.

Work to begin December 12, 1903. Contract to be completed May 12, 1904. Date of completion extended to August 10, 1904.

Contract for construction of 20-inch suction dredge for $98,400.

Contract for furnishing hardware for pontons.

Name of contractor: H. E. Carse.

Contract entered into May 6, 1904; approved June 3, 1904.

Delivery to be made July 24, 1904.

Amount of contract, $1,049.09.

Contract for furnishing discharge pipe.

Name of contractor: Baker Iron Works.

Contract entered into May 12, 1904; approved June 3, 1904.

Delivery to be made August 8, 1904.

Contract for furnishing 2,048 feet of 20-inch discharge pipe and 4 elbows for $3,023.08.

Contract for furnishing rubber sleeves.

Name of contractor: New Jersey Car Spring and Rubber Company.

Contract entered into May 14, 1904; approved June 17, 1904.

Delivery to be made August 22, 1904.

Contract for furnishing 25 rubber sleeves, 21½ inches diameter, 3 feet long, for $1,275.

Emergency contract for launch.

Name of contractor: H. E. Carse.

Contract entered into June 8, 1904.

Work to begin June 8, 1904; contract to be completed July 20, 1904.

Contract for gasoline launch, 30 feet long, 7-foot beam, with 16-horsepower "Standard" engine, for $1,732.50.



Commercial Statistics for the Year Ending December 31, 1903.

[Furnished by the collector of customs at Los Angeles, Cal.]

| | Incoming. | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 879 | 872 |
| Sailing | 387 | 382 |
| Total | 1,266 | 1,254 |
| Tonnage | 477,193 | 425,158 |
| Draft, greatest.....feet.... | 21 | 18 |
| Merchandise, general.....tons.... | 20,200 | 12,367 |
| Lumber .....feet....362,519,101 | ..... | |
| Crude oil.....barrels.... | 22,900 | 33,400 |
| Cement .....do..... | 13,500 | ..... |

Total amount of freight entered and cleared in 1903, 769,404 tons, an increase of 30 per cent over the preceding year.

No lines of transportation have been established or abandoned during the year.

## S S 4.

## IMPROVEMENT OF SAN LUIS OBISPO HARBOR, CALIFORNIA.

At the beginning of the fiscal year there was in force a contract, entered into February 14, 1903, with A. A. Polhamus for breakwater construction. When work began under this contract the breakwater had been completed for a distance of 700 feet from Whaler Island and partially built for the further distance of 300 feet. The 4,711 tons of stone delivered under this contract during the fiscal year ending June 30, 1903, was used in building up the 300 feet of partially completed work in order to afford shelter to the floating plant.

During the fiscal year ending June 30, 1904, 20,476.5 tons of stone was delivered, at a cost, including engineering and all other expenses, of $48,021.08, and the breakwater was completed to a point 1,160 feet from Whaler Island. The contract was completed October 13, 1903. During the past winter the outer 100 feet of the breakwater was somewhat beaten down by the waves.

The total amount expended on the construction of this breakwater to June 30, 1904, is $279,333.56, and the project is about 50 per cent completed.

The available balance, together with any additional appropriations, should be expended in extending the breakwater under contract and for contingencies.

Money statement.

| | |
|---|---|
| July 1, 1903, balance unexpended | $48,688.47 |
| June 30, 1904, amount expended during fiscal year, for works of improvement | 48,021.08 |
| July 1, 1904, balance unexpended | 667.39 |

| | |
|---|---|
| Amount (estimated) required for completion of existing project | 288,659.05 |
| Amount that can be profitably expended in fiscal year ending June 30, 1906, for works of improvement, in addition to the balance unexpended July 1, 1904 | 100,000.00 |
| Submitted in compliance with requirements of sundry civil act of June 4, 1897. | |

Appendix S S—Report of Captain M'Kinstry. 3391

Amount and Date of All Appropriations for the Work.

| | |
|---|---|
| August 11, 1888 | $25,000.00 |
| September 19, 1890 | 40,000.00 |
| July 13, 1892 | 30,000.00 |
| August 18, 1894 | 40,000.00 |
| June 3, 1896 | 40,000.00 |
| March, 3, 1899 | 55,000.00 |
| June 13, 1902 | 50,000.00 |
| Total | 280,000.00 |
| Received from sale of property | .95 |
| Total | 280,000.95 |

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Abstract of All Contracts in Force.

Contract for continuing construction of breakwater.

Name of contractor: A. A. Polhamus.

Contract entered into February 14, 1903; approved March 20, 1903.

Work to begin May 25, 1903; contract to be completed November 25, 1903.

Contract for delivery of 25,269 tons (of 2,000 pounds each) of rubblestone at $1.86 per ton.

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Commercial Statistics for the Year Ending December 31, 1903.

[Furnished by the Pacific Coast Railway Company.]

| | | Incoming. | Outgoing. |
|---|---|---|---|
| Vessels: | | | |
| Steam | | 225 | 225 |
| Sailing | | | |
| Total | | 225 | 225 |
| Tonnage | | 130,057.0 | 130,057.0 |
| Draft, greatest | feet | 15.0 | 15.0 |
| Merchandise, general | tons | 7,255.7 | 1,895.2 |
| Coal | do | 713.9 | |
| Lumber | feet | 6,273,891.0 | 7,281.0 |
| Grain | tons | 371.6 | 35,990.3 |
| Bituminous rock | do | | 1,272.5 |
| Dairy products | do | 9.4 | 216.2 |
| Live stock | do | | 4.0 |

Total amount of freight entered and cleared in 1903, 60,291 tons, an increase of 8.2 per cent over that of the preceding year.

No lines of transportation have been established or abandoned during the year.

## S S 5.

## EXAMINATION OF COLORADO RIVER BETWEEN ELDORADO CANYON AND RIOVILLE, NEVADA.

[Printed in House Doc. No. 237, Fifty-eighth Congress, second session.]

War Department,
Office of the Chief of Engineers,
Washington, December 1, 1903.

SIR: I have the honor to submit herewith a report dated March 31, 1903, by Capt. Edgar Jadwin, Corps of Engineers, on preliminary
3392 Report of the Chief of Engineers, U. S. Army.
examination of Colorado River, with a view to removing obstructions, etc., between Eldorado Canyon and Rioville, Nev., made in pursuance of a requirement in the river and harbor act approved June 13, 1902.

In Captain Jadwin's opinion the locality is not worthy of improvement by the General Government at this time, and this opinion is concurred in by the division engineer, Lieut. Col. D. P. Heap, Corps of Engineers. The Board of Engineers for Rivers and Harbors has reviewed this report in accordance with the provisions of sections 3 and 14 of the above-mentioned act, and the Board states in its report of May 21, 1903, that it is not desirable for the United States to undertake this improvement.

I concur in this opinion.

Very respectfully, your obedient servant,

G. L. Gillespie,
Brig. Gen., Chief of Engineers, U. S. Army.

Hon. Elihu Root,
Secretary of War.

Report of Capt. Edgar Jadwin, Corps of Engineers.

United States Engineer Office,
Los Angeles, Cal., March 31, 1903.

General: In compliance with instructions contained in Department letter of June 23, 1902, I have the honor to submit the following report of a reexamination of the Colorado River, with a view to removing obstructions, deepening and rendering navigable the channel between Eldorado Canyon and Rioville, Nev.

No expenditures have been made for the improvement of navigation of the Colorado River, with the exception of $25,000, appropriated July 5, 1884, for the section immediately below the one now being reported upon, and $10,000, appropriated July 13, 1892, for the construction of a levee along the Gila River, near its junction with the Colorado River. Since that time several reports have been made upon the river, some of them covering the section now in question, and all of them unfavorable.

The last report was made by the late Capt. James J. Meyler, Corps of Engineers, September 29, 1900. His report and that of his assistant, Mr. L. C. Easton, assistant engineer, give a complete account of the physical and hydrographic conditions and of the previous navigation over the section.

I have recently traversed the 75 miles of river between Rioville and Eldorado Canyon in a skiff with Capt. J. A. Mellon, and incidentally the 87 miles from Eldorado Canyon to the railroad crossing at Needles. In this connection acknowledgment is made of the services of Captain Mellon, who is the oldest navigator on the river, and whose knowledge of it was of great assistance.

I found no material change in the conditions as described by Captain Meyler and Mr. Easton. The position of the section in question relative to other portions of the river and to the surrounding country is shown on the accompanying map.*

*Not printed.

Appendix S S—Report of Captain M'Kinstry. 3393

The Colorado is the longest river on the Pacific slope south of Alaska. It is said to have been navigated by the Spaniards as early as 1540, and has the unusual record of having been commercially navigated for 600 miles from its mouth before any improvement was made. With its tributaries it has an enormous drainage area, and is the only continuously flowing river in the Southwest. There can be no question that the time is coming when it will need to be utilized to its fullest extent for all the service it may be capable of rendering.

While its slope below Eldorado Canyon does not differ materially from that of other rivers in the United States improved by slack-water navigation, that between Rioville and Eldorado Canyon (about 4 feet to the mile) is greater than obtains in rivers usually so improved, excepting for comparatively short reaches around falls or rapids. Still so much of the bank is in canyon and the flow of water is so great (ranging approximately from 3,000 cubic feet per second at low water to over 40,000 cubic feet per second at high water) that much improvement can be made in the navigation at a comparatively reasonable cost. To provide for slackwater navigation would be extremely expensive. With an appropriation of, say, $60,000 a dredge and work-

ing boat could be built, and great improvement effected by removing threatening bowlders and dredging at some shoals. The dredge would be available for use on other parts of the river.

If the river were improved in this way it is not clear that it would result in any development of country within the next few years, principally because freight rates are so high from existing railroads to all points of the section. These rates are now controlled by the great length of wagon haul, or of water haul over the river from Needles to Eldorado Canyon. The former is not susceptible of much improvement except by the construction of railroads, which will shorten or do away with it altogether. The latter could be reduced considerably if the river were further improved between Needles and Eldorado Canyon.

There are some features which indicate that benefit would eventually result. The Geological Survey has taken initial steps looking to the use of the water farther down the river for irrigation purposes. This will naturally cause a great development of that country. There is also some increase in the mining being done along the upper river; also in the demand for navigation facilities on the river below Eldorado Canyon. It is claimed that large manganese deposits, lying along the river just below Rioville, must eventually be brought to market for use in the iron business, as the available supply of manganese elsewhere is rapidly being exhausted. Gold, gypsum, silver, and copper are also known to exist in the vicinity. The gold ore so far discovered is so poor that it is not profitably worked by existing methods. It can not be definitely stated whether methods now being developed

will make it practicable to successfully work these ores in the near future.

The present commerce of the river between Rioville and Eldorado Canyon is practically nil. Since Captain Meyler's report three new steamboat lines have been organized, principally for business on the river between Eldorado Canyon and the Gulf of California. As yet they have carried very little freight, but it is expected that in the near future more will be handled.

A railroad now being constructed is expected to pass Las Vegas, distant some 20 miles, from which point there is said to be a practicable



route for a branch of the river. There are rumors that the Arizona and Utah Railroad will be extended from Chloride to Rioville, and that a new road will be built from a point on the Atchison, Topeka and Santa Fe Railroad through Searchlight to Quartette and Eldorado Canyon. There also has been a plan under consideration for the construction of a railroad in Utah down to Rioville in order that the manganese near the river may be brought into close connection with the coal in Utah.

Should any of the above possibilities be developed the situation might be greatly changed, possibly to such an extent that the improvement of the river would be justified. The section is so largely in canyon that for a number of years its traffic would probably be handled by boat rather than by a railroad, as the construction of the latter up and down the river would be extremely expensive.

Should the canyon portion of the river ever be improved sufficiently to justify the establishment of regular lines of steamers it would probably become one of the favorite scenic and tourist routes of the world.

In view of the improbability that any work of improvement would result in corresponding benefit to the country or development of commerce in the reasonably near future, I am of the opinion that the Colorado River between Eldorado Canyon and Rioville is not worthy of improvement by the General Government at this time.

Very respectfully,

Edgar Jadwin,
Captain, Corps of Engineers.

Brig. Gen. G. L. Gillespie,
Chief of Engineers, U. S. A.
(Through the Division Engineer.)

[First indorsement.]

U. S. Engineer Office, Pacific Division,
San Francisco, Cal., April 2, 1903.

Respectfully forwarded to the Chief of Engineers, United States Army, concurring in recommendation in paragraph 14 of this report.

D. P. Heap,
Lieut. Col., Corps of Engineers,
Division Engineer.

[Second indorsement.]

Office Chief of Engineers, U. S. Army,
April 10, 1903.

Respectfully referred to the Board of Engineers for Rivers and Harbors constituted by Special Orders, No. 24, Headquarters, Corps of Engineers, series of 1902, for consideration and recommendation.

Additional information has been called for, if available.

By command of Brig. Gen. Gillespie:

A. Mackenzie,
Colonel, Corps of Engineers.

Appendix S S—Report of Captain M'Kinstry. 3395

[Third indorsement.]

Board of Engineers for Rivers and Harbors,

Washington, D. C., May 21, 1903.

Respectfully returned to the Chief of Engineers, United States Army.

The Board of Engineers for Rivers and Harbors has considered the within report of the district officer, the indorsement of the division engineer, and other data available.

The Colorado River between Rioville and Eldorado Canyon is reported to have a low-water fall of 270 feet in a distance of 65 miles. Any improvement worthy of the name would involve canalization at great expense. The Colorado River below Eldorado, about 500 miles in length, is not at present in excellent navigable condition, and for any distance above Rioville navigation would never be possible under any circumstances.

The country bordering upon the river is as a rule barren, though believed to be rich in mineral deposits. There is no present commerce upon this section of river, and it is believed that none would develop of value commensurate with the cost of improvement.

For the reason stated the Board is of opinion that it is not desirable for the United States to undertake the improvement of the Colorado River between Eldorado Canyon and Rioville, Nev.

For the Board:

Chas. J. Allen,
Lieut. Col., Corps of Engineers,
Senior Member of the Board.

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S S 6.

## PRELIMINARY EXAMINATION OF COLORADO RIVER, ARIZONA AND CALIFORNIA, FROM YUMA TO THE MEXICAN BOUNDARY LINE.

[Printed in House Doc. No. 204, Fifty-eighth Congress, second session.]

War Department,
Office of the Chief of Engineers,
Washington, December 1, 1903.

Sir: I have the honor to submit herewith a report, dated January 22, 1903, by Capt. Edgar Jadwin, Corps of Engineers, on preliminary examination of Colorado River, Arizona and California, from Yuma to Mexican boundary line, ordered by the river and harbor act of June 13, 1902.

In the opinion of Captain Jadwin, the division engineer, Lieut. Col. D. P. Heap, Corps of Engineers, and the Board of Engineers for Rivers and Harbors, which has reviewed this report, in pursuance of the provisions of

sections 3 and 14 of the above-mentioned act, the locality is not worthy of improvement by the United States.

I concur in this opinion.

Very respectfully, your obedient servant,

G. L. Gillespie,

Brig. Gen., Chief of Engineers, U. S. Army.

Hon. Elihu Root,

Secretary of War.

3396 Report of the Chief of Engineers, U. S. Army.

Report of Capt. Edgar Jadwin, Corps of Engineers.

United States Engineer Office,

Los Angeles, Cal., January 22, 1902.

General: I have the honor to submit the following report on the preliminary examination of the Colorado River from Yuma to the Mexican boundary line.

Several explorations of portions of the Colorado River have been made, of which those by Lieut. J. C. Ives, of the Topographical Engineers, in 1856 and 1857; by Maj. J. W. Powell, of the United States Geological Survey, from 1869 to 1872, and by Lieut. Geo. M. Wheeler, Corps of Engineers, in 1875 (for latter see Report of Chief of Engineers, 1876, Part 3, pp. 329-345), are well known. A number of examinations of portions of the river above Yuma have been made by officers of the Corps of Engineers with a view to their improvement. The reports of these officers have generally been unfavorable, and, with the exception of the expenditure of $25,000, appropriated July 5, 1884, for the reach between Mojave and El Dorado Canyon, and $10,000 appropriated July 13, 1892, for the construction of a levee along the Gila River

near its junction with the Colorado River, so as to confine the waters to the channels of said river, no improvements for navigation purposes have been made by the General Government. Lieut. Col. C. E. L. B. Davis, Corps of Engineers, submitted a report September 7, 1896, on the whole river, which was also unfavorable. An exhaustive report on the lower portion of the river was made in 1851 by Lieut. Geo. H. Derby, of the Topographical Engineers, who had been sent to examine and survey a route for the transportation of supplies for troops operating in Arizona, New Mexico, etc.

The accompanying maps[3] show the portion of the river under examination and its relation to the entire river. The Mexican boundary line reaches the river 20 miles below the junction of the Gila and Colorado rivers at Yuma, follows it northerly to a point 6 miles south, and then leaves it, going in a westerly direction. The lower boundary is understood to be the one referred to in the order for the examination. The length of the river under examination is 31 miles, following the thread of the channel as measured on map prepared by the Boundary Commission. According to Lieutenant Derby's map the head of tide water and the mouth of the river are respectively 82 and 141 miles below Yuma.

Mr. R. B. Marshall, in charge of the United States Geological Survey party now operating in the vicinity of Yuma, informed me that the elevation of the water surface at Yuma January 2, 1903, was 119.4 feet above mean sea level and that the elevation of the water surface at the boundary line on the same day was 85.7 feet above sea level.

My examination was made in a skiff in company with Capt. J. A. Mellon, who has navigated the river for years.

Captain Mellon's long experience and familiarity with the history and conditions surrounding navigation on the river were of the greatest service in making this examination.

The river at the time of the examination was very near dead low water. Its velocity was about 2 feet per second. The flow at Yuma has been gauged frequently. The following table has been compiled

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*Not printed.

Appendix S S—Report of Captain M'Kinstry. 3397

principally by Mr. J. B. Lippincott, resident hydrographer of the United States Geological Survey:

Geological Survey:

| Date | Hydrographer. | Gauge height. | Discharge per second. |
|---|---|---|---|
| | | Feet. | Cubic feet. |
| 1854 | Lieutenant Michler | ..... | 6,250 |
| March 15, 1876 | Lieutenant Bergland | ..... | 7,659 |
| January 17, 1895 | J. B. Lippincott | 20.3 | 9,737 |
| April 18, 1895 | do | 20.2 | 21,094 |
| July 10, 1895 | do | 21.2 | 45,553 |
| May 20, 1896 | do | 22.2 | 57 903 |
| January 9, 1902 | do | 17.2 | 3,637 |
| February 20, 1902 | S. G. Bennett | 17.15 | 3,239 |
| May 30, 1902 | do | 23.00 | 38,400 |
| July 9, 1902 | do | 20.52 | 14,799 |
| July 7, 1902 | W. W Follett | 21.06 | 18,350 |
| October 11, 1902 | S. G. Bennett | 18.5 | 6,030 |
| October 14, 1902 | R. P. H. Laney | 17.8 | 4,798 |
| October 17, 1902 | do | 17.5 | 3,559 |
| October 21, 1902 | do | 17.6 | 4,203 |
| October 24, 1902 | do | 17.5 | 3,547 |

At the time of my examination the water course varied greatly in width, the narrowest point being estimated at about 80 feet. The water is extremely muddy. There are many bars, principally of sand, with some mud and clay. About a dozen of them had between 2 and 3 feet of water on them. Two had less than 2 feet. Captain Mellon informed me that the river had been low for some time, and that the depth of water on the shoals was therefore somewhat greater than was usual for the same gauge reading. A rise of a few feet gives the river a width between its first banks of nearly a thousand feet in most places. These banks, which are generally lined with vegetation, rise about 6 feet above the low water. Back some distance from them there is another rise of about 3 feet, called the second bank. These elevations are only general, the bottom lands being cut up in many places with sloughs. The line of the high mesa is shown on the accompanying map.[a] The bottom lands are fairly well covered with a growth of mesquite, willow, and cottonwood trees, and with hemp, arrow weed, creosote plant, and other shrubbery and undergrowth.

These lands on the eastern side have recently been thrown open to settlement, and many farms are now being located there. These farms rely on water from the river for irrigation. At a point about 9 miles below Yuma on the west bank a canal, taking out about 20 per cent of the water at low water for use in the new Imperial country, to the west of the river, has been put in by the Imperial Land and Water Company. I also saw portions of the land irrigated by water taken out by the Farmers' Land and Water Company and the Ludy Land and Water Company.

These companies have not as yet taken out sufficient water to materially interfere with navigation. Fortunately the period of the year when the land requires the greatest amount of irrigation coincides with the time of higher water on the river. I understand that United States geological surveys are now being made under the new irrigation law, with the general idea of providing eventually for the irrigation of all or nearly all of the bottom lands along the river.

Yuma is a town of about 1,400 population. It is supplied by one railroad, the main line of the Southern Pacific Company, from east to

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*Not printed.



west. This road during the past year took into Yuma the following amount of freight:

| | Tons. |
|---|---|
| Merchandise | 4,053 |
| Coal | 15 |
| Lumber | 946 |
| Agricultural products | 1,458 |
| Minerals | 33 |

It took out of Yuma:

| | Tons. |
|---|---|
| Merchandise | 1,326 |
| Lumber | 14 |
| Agricultural products | 1,024 |
| Minerals | 79 |

The commerce of the river below Yuma is very much less than that above. It is handled at present principally

by two vessels, the Cochan, a stern-wheel steamer, 159 feet by 32 feet 8 inches, drawing 20 inches light, and the St. Vallier, stern-wheel steamer, 75 feet by 17 feet. Photographs of both vessels are transmitted herewith. They operate usually by taking their cargoes on large flatboats, which they tow. A small amount is also taken down river on flatboats, drifting with the current or towed by small launches.

The best information available indicates that the total tonnage down the river from Yuma during the past year did not exceed 500 tons. Very little was brought up the river to Yuma.

The boats could without any improvement to the river probably handle conveniently 15,000 tons a year from Yuma to Port Isabel, at the mouth of the river, where larger-draft ships may come to discharge.

I am informed that in former years 28 sailing vessels and 2 steamers were for some time employed in transporting supplies from San Francisco by ocean and Gulf of California to the mouth of the river. The supplies were then carried up the river on river steamers and barges to various landings in Arizona, whence they were hauled by teams to points where needed in Arizona and New Mexico. This business ceased with the construction of the trunk railroads through this territory from east to west.

If work were done now for the improvement of navigation, the first step should be to dredge through the shoals at the beginning of each low-water season, substantially as is done on the Mississippi River. Many people are interested in having a levee constructed along the eastern bank of the section of river covered by this exam-

ination. Such a levee would be valuable in protecting the fertile bottom lands from overflow. It would not be of much value at this time for the improvement of navigation.

Dredging, if done in connection with dredging and rock removal in the reaches above Yuma, would naturally be done by a boat traveling back and forth as its services were required. If the dredging were required over only a small reach, competition might be had between the small suction and dipper dredges now utilized for dredging in the irrigation canals.

In view of the above facts, particularly as the river is now capable of floating much more business on existing boats, I am of opinion that the expenditure of money for the improvement of the river simply

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[a]Not printed.



for navigation purposes would not result in a corresponding benefit to commerce.

The irrigation of the bottom lands is expected to be followed by a large growth in population and commerce. It is also expected that the business on the river will increase in the near future, partly as the result of the development of these lands and partly because of the opening of mines in Mexico near the river. The construction of dams across the river for irrigation purposes may also improve the navigation. The question of placing locks in them should be considered in connection with their design, in order that the navigation of the river may, if it appears wise, be developed simultaneously with the growth of the adjacent country. The great expense neces-

sary for the construction of locks and dams would not now be justified solely for the improvement of navigation.

In conclusion, I do not consider the Colorado River between Yuma and the Mexican boundary line worthy of improvement for navigation purposes at this time.

Very respectfully,

Edgar Jadwin,
Captain, Corps of Engineers.

Brig. Gen. G. L. Gillespie,
Chief of Engineers, U. S. A.
(Through the Division Engineer.)

[First indorsement.]

U. S. Engineer Office, Pacific Division,
San Francisco, Cal., January 27, 1903.

Respectfully forwarded to the Chief of Engineers, United States Army.

I concur in the conclusions reached by Captain Jadwin.

D. P. Heap,
Lieut. Col. Corps of Engineers,
Division Engineer.

[Second indorsement.]

Office Chief of Engineers, U. S. Army,
February 10, 1903.

Respectfully referred to the Board of Engineers for Rivers and Harbors, constituted by Special Orders, No. 24, Headquarters, Corps of Engineers, series of 1902, for

consideration and recommendation, as required by section 3 of the act of June 13, 1902.

By command of Brig. Gen. Gillespie:

A. Mackenzie,
Colonel, Corps of Engineers.

[Third indorsement.]

Board of Engineers for Rivers and Harbors,

Washington, D. C., April 13, 1903.

Respectfully returned to the Chief of Engineers, United States Army.

The Board of Engineers for Rivers and Harbors has given due consideration to the within report of the district officer and the indorsement of the division engineer thereon.

The commerce of Colorado River below Yuma is at present insignificant. The condition of the stream is such that boats now in the trade can handle a much larger commerce than is offered.



In view of these facts, the Board believes that until the river trade has greatly increased it is not desirable for the United States to undertake the improvement of "Colorado River, from Yuma to Mexican boundary line."

For the Board:

H. F. Hodges,
Major, Corps of Engineers,
Senior Member Present.

S S 7.

## PRELIMINARY EXAMINATION OF SANTA CRUZ BAY, CALIFORNIA.

[Printed in House Doc. No. 214, Fifty-eighth Congress, second session.]

War Department,
Office of the Chief of Engineers,
Washington, December 11, 1903.

Sir: I have the honor to submit herewith a report dated December 27, 1902, by Capt. Edgar Jadwin, Corps of Engineers, on preliminary examination of Santa Cruz Bay, California, with a view to increasing the harbor facilities therein. This examination was made in pursuance of a requirement in the river and harbor act of June 13, 1902, and, for reasons given in his report, Captain Jadwin does not consider the harbor worthy of improvement by the General Government at this time. His views are concurred in by the division engineer, Col. D. P. Heap, Corps of Engineers.

The Board of Engineers for Rivers and Harbors has reviewed this report under the provisions of sections 3 and 14 of the above-mentioned act, and expresses the opinion in its report of April 21, 1903, that it is not desirable that the United States should undertake the proposed improvement.

I concur in the opinion of the Board.

Very respectfully, your obedient servant,

G. L. Gillespie,
Brig. Gen., Chief of Engineers, U. S. Army.

Hon. Elihu Root,
Secretary of War.

Report of Capt. Edgar Jadwin, Corps of Engineers.

United States Engineer Office,

Los Angeles, Cal., December 27, 1902.

General: I have the honor to submit the following report on the preliminary examination of Santa Cruz Harbor, California, required by the river and harbor act of June 13, 1902, with a view to increasing the harbor facilities therein.

The history of previous examinations of this harbor is briefly as follows: Under an act of the legislature of the State of California approved February 11, 1870, a commission, consisting of Gen. B. S.



Alexander and C. W. Lightner, recommended the construction of a breakwater at an estimated cost of $5,702,400. Col. R. S. Williamson, who made the examination required by the river and harbor act of 1871, simply forwarded a copy of the report of the above commission, without expressing an opinion as to the necessity of the improvement. Col. C. S. Stewart, who made the examination required by the river and harbor act of 1873, submitted an estimate amounting to $10,639,726 for a breakwater 2,300 feet in length, with an additional estimate of $655,000 should it be considered necessary to place an auxiliary structure at Point Santa Cruz. He expressed the opinion that the necessities of commerce did not justify the expenditure of so large an amount of money. Lieut. Col. W. H. H. Benyaurd, who made the examination required by the river and harbor act of 1890, indicated the approximate position and length of a breakwater that would afford the requisite shelter were

its construction demanded in the interests of commerce, and stated that the cost would amount to several millions of dollars. He reported that, in view of the cost of an improvement of the character contemplated, when compared with the limited commerce of Santa Cruz and with the general commerce of the coast that would be benefited, he did not consider the harbor of Santa Cruz worthy of improvement.

The harbor lies at the northwest extremity of the Bay of Monterey, 65 nautical miles south of San Francisco, and 151 nautical miles north of the harbor at Port Harford, near San Luis Obispo. Its relation to Monterey Bay is shown on the accompanying sketch. Photographs are submitted showing views of the harbor from opposite sides, the general location of the two existing wharves and their details. The depth of water at the present outer end of the wharves is about 11 feet at low water. The Pacific Coast Steamship Company's steamer which plies regularly between San Francisco, Santa Cruz, and other ports in Monterey Bay is also shown. The line of passenger and freight boats plying between San Francisco and way ports to San Pedro and Newport also stops at Santa Cruz every four days, both ways.

The physicial characteristics of Santa Cruz Bay are favorable for the formation of an excellent harbor. There are large quantities of rock in the vicinity, and the cost of a breakwater would not be excessive, as compared with the cost of other similar structures.

It has been suggested that its construction would, in addition to making an excellent harbor for local trade, provide a harbor of refuge for the local coasting trade, present and prospective, and serve for the American ter-

minus of a new trans-Pacific route. My attention was also directed to the difficulties of entering San Francisco Harbor in foul weather, it being claimed that a breakwater could be so located at Santa Cruz that vessels could obtain its protection at any hour of the day or night and in any stress of weather. The location of a harbor of refuge for the accommodation of vessels entering San Francisco Harbor would, if required, naturally be the subject of a special investigation.

The population of the town of Santa Cruz in 1900 was 5,659; that of the county, 21,512. It is served by several branches of the Southern Pacific Railroad, but at present by no other railroad. Preliminary steps are being taken looking to the construction of an electric road

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*Not printed.



running from some point in the county to Santa Cruz. A franchise and rights of way have been granted by the city council for a third line to San Francisco along the ocean shore. The Southern Pacific Railroad has large terminal facilities at San Francisco. It is not known what extent the electric road, when constructed, may figure in the traffic situation. It is further hoped that a pipe line will be constructed to Santa Cruz from the oil fields in central California, and that an additional transcontinental line coming up through California will touch at Santa Cruz on its way to San Francisco. It must be admitted, however, that the present outlook is not promising for a trans-Pacific commerce.

As a harbor of refuge for coasting trade Santa Cruz and Monterey harbors, about 20 miles apart, are supple-

mentary. Monterey Harbor is thoroughly protected from the storms which are most threatening at Santa Cruz, and vice versa. Both harbors are comparatively easy of access. It is the custom of the regular steamers, when it is too rough to land at Santa Cruz, to run over to Monterey first, and subsequently return to Santa Cruz. No vessel has been lost in Santa Cruz Harbor for forty years. Some were lost prior to that time. Six ships went ashore in one storm in 1852. Shippers rarely insure their cargoes.

The products of the county include large quantities of timber, bituminous rock, lime, wine, fruit, vegetables, and grain, two-thirds of which are stated to be shipped to San Francisco and the other third south and east. About 8,000 tons of these products, which is only a very small percentage of the whole, are shipped by water. The imports by water amount to less than 4,000 tons. The rates by water are about 15 per cent less than corresponding rates by rail. Formerly all freighting business was carried on by the vessels, but with the construction of the railroads this business diminished.

In view of the above-mentioned facts, it does not appear that the expenditure of the money required for the construction of a breakwater would, at the present time, or in the near future, result in a corresponding benefit to commerce. I have therefore to report that I do not consider the harbor at Santa Cruz worthy of improvement by the General Government at this time.

Very respectfully, your obedient servant,

Edgar Jadwin,
Captain, Corps of Engineers.

Brig. Gen. G. L. Gillespie,
Chief of Engineers, U. S. A.
(Through the Division Engineer.)

[First indorsement.]

U. S. Engineer Office, Pacific Division,
San Francisco, Cal., January 6, 1903.

Respectfully forwarded to the Chief of Engineers, United States Army.

In view of the large cost of the improvement, and its relatively slight benefit to commerce, I concur in the recommendation of Captain Jadwin.

D. P. Heap,
Lieut. Col., Corps of Engineers,
Division Engineer.

Appendix S S—Report of Captain M'Kinstry. 3403

[Second indorsement.]

Office Chief of Engineers, U. S. Army,
February 13, 1903.

Respectfully referred to the Board of Engineers for Rivers and Harbors constituted by Special Orders, No. 24, Headquarters, Corps of Engineers, series of 1902, for consideration and recommendation, as required by section 3 of the act of June 13, 1902.

By command of Brig. Gen. Gillespie:

A. Mackenzie,
Colonel, Corps of Engineers.

[Third indorsement.]

Board of Engineers for Rivers and Harbors,

Washington, D. C., April 21, 1903.

Respectfully returned to the Chief of Engineers, United States Army.

The board of Engineers for Rivers and Harbors has considered the within report of the district officer, the indorsement of the division engineer thereon, and other data available.

Previous examinations and reports on Santa Cruz Bay, California, indicate that the cost of the establishment of a harbor of the first class would be some millions of dollars. It is not probable that the present needs of general commerce demand another harbor so near San Francisco with sufficient urgency to warrant so large an expense. The needs of existing and prospective local commerce at Santa Cruz are fairly met at present. Monterey Bay, with its supplementary anchorages at Monterey and Santa Cruz, already furnishes reasonable refuge to shipping in storms.

For the reasons stated the Board is of opinion that it is not desirable that the United States should undertake the improvement of "Santa Cruz Bay, with a view to increasing the harbor facilities therein."

For the Board:

H. F. Hodges,
Major, Corps of Engineers,
Senior Member Present.

[Stamped]: Drafting Room File

UNITED STATES [Emblem] OF AMERICA
WAR DEPARTMENT

Washington, November 15, 1930.

I hereby certify that the attached pamphlet is a true copy of an extract from the Annual Report of the Chief of Engineers, 1904, on file in the Office of the Chief of Engineers, United States Army.

Lytle Brown
Lytle Brown,
Major General,
Chief of Engineers.
B.W.

I hereby certify that Lytle Brown, who signed the foregoing certificate, is the Chief of Engineers, United States Army, and that to his certification as such full faith and credit are and ought to be given.

In testimony whereof I, Patrick J. Hurley, Secretary of War, have hereunto caused the Seal of the War Department to be affixed and my name to be subscribed by the Assistant and Chief Clerk of the said Department, at the City of Washington, this —18th— day of November, 1930.

[SEAL]

Patrick J. Hurley
Secretary of War.
By John C. Scofield
Assistant and Chief Clerk.

No. Q-12-J City of LA vs. Borax Plf Exhibit No. 24 Filed 11/14 1933 R. S. Zimmerman, Clerk By Cross Deputy Clerk

ANNUAL REPORT
upon the
IMPROVEMENT OF HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO,
in the charge of
C. H. McKINSTRY,
Captain Corps of Engineers, U. S. A.:
being
APPENDIX S S
of the
Annual Report of the Chief of Engineers for 1905.

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WASHINGTON:
Government Printing Office.
1905.

[Stamped]: Drafting Room File

[EXTRACT FROM THE ANNUAL REPORT OF THE CHIEF OF ENGINEERS TO THE SECRETARY OF WAR.]

Office of the Chief of Engineers,
United States Army,
Washington, September 29, 1905.

* * * * * * *

## IMPROVEMENT OF HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO.

This district was in the charge of Capt. C. H. McKinstry, Corps of Engineers. Division engineer, Col. D. P. Heap, Corps of Engineers

(now brigadier-general, U. S. Army, retired), until October 16, 1904, and Col. T. H. Handbury, Corps of Engineers, since that date.

1. San Diego Harbor, California.—San Diego Harbor is just north of the national boundary of Mexico and 482 nautical miles south of San Francisco.

The river and harbor act approved March 3, 1875, appropriated $80,000 for the construction of a dike across the mouth of San Diego River, causing it to empty into False Bay and thus preventing San Diego Harbor from being injured by the deposit of material brought down during flood stages. This work was completed in 1876, at a cost of $79,798.72, which, with the cost of repairs made up to the time of adoption of the present project, brought the total expenditures to $81,918.45.

The present project for the improvement of the harbor, adopted by the river and harbor act approved September 19, 1890, provided for the construction of a jetty on Zuninga shoal, at the entrance to the harbor; the maintenance of a channel 24 feet deep at mean low tide and 500 feet wide through the "middle ground," and for repairs to restraining dike. The jetty was to rise to the height of extreme high water and to be about 7,500 feet long, with a view to producing a depth of 26 feet at mean lower low water on the outer bar.

At the time of the adoption of this project the governing depth on the bar was 21 feet. Just inside the entrance was a middle ground carrying but 17 feet of water. The main channel, lying to the west of the middle ground, was of ample depth, but was difficult of navigation on account of two sharp turns.

The original estimated cost of this improvement was $394,400, but as work on the inner half of the jetty progressed under the different contracts it became evident that this sum would be inadequate. Therefore, under date of June 20, 1900, the local officer was authorized to change this estimated cost to $542,850.

The appropriation of $192,850 in the sundry civil act of March 3, 1903, brought the total of appropriations up to the amount of the revised estimate.

The amount expended on the present project up to the close of the fiscal year ending June 30, 1905, is $543,-296.49. Of this, $4,913.58 was applied to maintenance, viz., to repairing the restraining dike. Further repairs to this dike have been made by the city of San Diego.

The jetty has been extended to its full contemplated length of 7,500 feet; a channel 26 feet deep and 271 feet wide (28 feet deep over a width of 171 feet) has been dredged across the outer bar, and a channel 26 feet deep and 400 feet wide has been dredged across the middle ground.

During a severe storm in March, 1905, the channel through the outer bar shoaled to 25 feet depth, which is the maximum draft that could be carried into San Diego Harbor on June 30, 1905, at mean lower low water. The average height of all high waters above the plane of reference is 4.8 feet. The increase of depth on the outer bar, 7 feet at the conclusion of dredging, now amounts to 4 feet; the increase of depth on the middle ground amounts to 9 feet.

The effect of this work of improvement will be to make the entrance of deep-draft vessels into this harbor easy and safe.

It is estimated that to maintain the bar channel and the channel across the middle ground will cost $15,000 annually.

River and Harbor Improvements. 639

The river and harbor act of March 3, 1905, appropriated $10,000 for the maintenance of these channels. No work has as yet been done under this appropriation.

The commerce of this harbor was 121,686 tons for the calendar year 1904, a decrease of 7.6 per cent from that of the previous year. In character the commerce is unchanged since the preceding year. It consists principally of lumber, general merchandise, coal, and cement received, and of lumber, general merchandise, and ore shipped. The value of this commerce is estimated to be $4,092,000.

The coastwise trade is carried in vessels drawing from 12 to 18 feet of water, and is benefited but little by the improvement of the harbor. The American-Hawaiian steamers, of 8,000 to 10,000 tonnage, each enter this port once a month. These vessels draw about 26 feet of water and carry 1,000 to 2,000 tons of freight per month for San Diego. Freight for San Diego carried by the Panama steamers is delivered by coastwise steamers from San Francisco. The American-Hawaiian steamers and the Panama steamers have a rate from the Atlantic ports to San Diego averaging about 30 per cent cheaper than railroad rates. Foreign cements are received in this port in sailing vessels drawing 22 and 23 feet of water.

For reference to reports on examinations and surveys, see Annual Report of the Chief of Engineers for the year 1904, page 632.

| | |
|---|---|
| July 1, 1904, balance unexpended | $55,871.80 |
| Amount appropriated by river and harbor act approved March 3, 1905 | 10,000.00 |
| | 65,871.80 |
| June 30, 1905, amount expended during fiscal year, for works of improvement | 55,733.48 |
| July 1, 1905, balance unexpended | 10,138.32 |

(See Appendix S S 1.)

2. Deep-water harbor at San Pedro Bay, California.—The river and harbor act of June 3, 1896, provided for the appointment of a Board to determine upon the location of a deep-water harbor for commence and for refuge in Santa Monica Bay, California, or at San Pedro, in the same State, the decision of a majority of the Board as to location to be final. The Board was to make plans, specifications, and estimates for said improvement. After the Board should have rendered its decision and submitted its report the Secretary of War was empowered to make contracts for the completion of the selected harbor in accordance with the project of the Board, at a cost not exceeding in the aggregate $2,900,000.

In accordance with the provisions of this act a Board was appointed, which submitted its report March 1, 1897, deciding in favor of San Pedro Bay. The report of the Board is printed in Senate Document No. 18, Fifty-fifth Congress, first session.

The plan of the Board (the present project of improvement) was to construct, to the eastward of Point Fermin, a breakwater about 8,500 feet long, or as much longer as

could be constructed within the authorized limit of cost, $2,900,000, and it has been decided that a breakwater 9,000 feet long should be built. In plan the breakwater is to consist of two straight arms connected by a curve 1,800 feet in length, of 1,910 feet radius. The westerly arm is to be 3,000 feet long, pointing S. 72° E. (magnetic); the easterly arm, 3,700 feet



long, pointing N. 54° E. (magnetic). A gap of about 2,000 feet is to be left between the east shore of Point Fermin and the westerly end of the breakwater.

Originally San Pedro Bay was an open roadstead exposed to southeasterly, southerly, and southwesterly winds. The effect of the breakwater will be to afford a place of refuge, easy of access, and secure from storms, for vessels of the largest size. It will also shelter the entrance to the inner harbor of San Pedro.

On August 12, 1898, a continuing contract was entered into with Heldmaier & Neu, of Chicago, Ill., for the construction of the breakwater, for $1,303,198.54. This contract was annulled on March 19, 1900, on account of unsatisfactory progress. Up to that time 84,581 tons of stone had been placed in the substructure, at a cost, including inspection, etc., of $51,537.43.

On June 7, 1900, a continuing contract for completing the breakwater was entered into with the California Construction Company, of San Francisco, Cal. The estimated cost of work under this contract, using the quantities on which bids were canvassed and the prices bid for stone and concrete, and allowing 10 per cent for engineering expenses and contingencies, is $2,613,100.66, in addition to expenditures under the former contract.

The amount expended under the project up to the close of the fiscal year ending June 30, 1905, is $1,848,955.01, including the expenditures of the Board referred to above.

Work was begun at the westerly end of the substructure. Up to June 30, 1905, 1,887,547 long tons of stone, at $0.844 per ton, had been deposited in the substructure under the present contract, and the substructure was about completed for a distance of 8,212 feet, and some stone had been deposited for a farther distance of 288 feet.

The superstructure was begun at a distance of 628 feet from the westerly end and is being built to the eastward. To June 30, 1905, 72,165 tons of stone had been placed in the superstructure, which was partially completed for a length of 2,872 feet. The amount of work done is the equivalent of 2,659 feet of completed work.

The protected area is used by vessels which have to lighter a part of their cargo or have to await a favorable tide before they can enter the inner harbor. The effect of continuing work under the existing project will be to enlarge the protected area and to increase the shelter afforded the entrance to the inner harbor.

For commercial statistics, see report on Wilmington Harbor. There are, as yet, no commercial wharves in the outer or breakwater harbor.

For reference to report on examinations and surveys, see Annual Report of the Chief of Engineers for the year 1904, page 634.

| | |
|---|---|
| July 1, 1904, balance unexpended | $523,848.20 |
| Amount appropriated by sundry civil act approved March 3, 1905 | 460,000.00 |
| | 983,848.20 |

| | |
|---|---|
| June 30, 1905, amount expended during fiscal year, for works of improvement | 415,718.16 |
| July 1, 1905, balance unexpended | 568,130.04 |
| July 1, 1905, outstanding liabilities | 46,742.51 |
| July 1, 1905, balance available | 521,387.53 |



| | |
|---|---|
| July 1, 1905, amount covered by uncompleted contracts | $820,869.35 |
| Amount (estimated) required for completion of existing project | 482,914.95 |
| Amount that can be profitably expended in fiscal year ending June 30, 1907, for works of improvement, in addition to the balance unexpended July 1, 1905. Submitted in compliance with requirements of sundry civil act of June 4, 1897. | 300,000.00 |

(See Appendix SS 2.)

3. Wilmington Harbor, California.—Wilmington is situated at the head of a small estuary which has its outlet in the bay of San Pedro, and is 393 nautical miles to the southward of San Francisco.

Previous to the commencement of the improvement, in 1871, there was a depth of less than 2 feet of water at low tide at the entrance.

The original project, approved July 1, 1871, contemplated gaining a depth of 10 feet at mean low tide. This depth was obtained in 1881, at a cost of $555,000, when a further project to increase depth of channel to 15 feet at mean low tide by dredging a reef between the jetties, rais-

ing existing works, and extending the jetties to 18 feet of water in San Pedro Bay, was submitted. This project was completed in 1893, at a cost of $399,497.68.

The river and harbor act of June 3, 1896, appropriated $50,000 for improving the harbor in accordance with a project submitted in 1894 for a channel depth of 18 feet at mean low tide, at an estimated cost of $392,725. Owing to certain provisos, however, this money was not available without further action by Congress.

The present project was adopted by the river and harbor act of June 13, 1902, and contemplates providing a channel 20 feet deep and 400 feet wide from the outer harbor to the foot of the wharves; and 24 feet deep between harbor lines from the foot of the wharves to and including a turning basin 1,600 feet in diameter just below Mormon Island. It also provides for repairs to the east jetty and for the construction of a dike to divert the waters of the Los Angeles River from Wilmington Lagoon. The same act made available the $50,000 appropriated by the act of June 3, 1896.

Changed conditions have rendered the building of the dike inadvisable.

The estimated cost of the work called for by the present project, including the procurement of a dredge, is $550,000.

The amount expended under the existing project to June 30, 1905, is $251,743.33.

Repairs have been made to the east jetty at a cost of $3,700. Dredging, under contract, to the depth of 21 feet has been done along the greater part of the dock fronts of San Pedro and East San Pedro, and to the depth of 20 feet at the entrance at a cost (contract payments only) of $100,215.40.

A 20-inch suction dredge has been built, at a cost, including inspection, of $99,453.33. The necessary discharge pipe line (2,048 feet long) and floating plant (pontons, barges, launch) have been added at a cost of $17,299.35.

The dredge was completed and turned over to the United States on March 10, 1905, since which time 243,914 cubic yards of material has been dredged in front of the wharves at Terminal and East San Pedro, at a cost of $17,788.42, office expenses not included.

642 Report of the Chief of Engineers, U. S. Army.

Work under the various projects above mentioned has resulted in increasing the depth at the entrance from 2 to slightly more than 18 feet, which is the maximum draft that could be carried into the inner harbor June 30, 1905, at mean lower low water. The average rise of the tides above this plane of reference is 5.1 feet.

The river and harbor act of March 3, 1905, appropriated $100,000 for continuing this work and authorized contracts in the sum of $150,000 more for completing it. About $70,000 will be expended in dredging the entrance to the harbor under contract, and the remainder in dredging with Government dredge and for contingencies.

For the calendar year 1904 the commerce of this port amounted to 845,220 tons, an increase of 9.9 per cent over the preceding year. In character the commerce is unchanged since the previous year. It consists principally of lumber, crude oil, and general merchandise received, and of general merchandise and crude oil shipped. Its value is estimated at about $9,000,000.

It is difficult to estimate accurately the effect of this improvement on freight rates. The principal traffic of the harbor is in lumber received from northern California,

Oregon, and Washington and shipped inland by rail, and amounts for the calendar year 1904 to more than 780,000 tons. The water rate on lumber from Puget Sound points to Los Angeles is about $4.55 per ton; the railroad rate, $12.20 per ton. Without the improvement of Wilmington Harbor lumber would have to be unloaded at exposed piers or brought to Wilmington in vessels of light draft or lightered ashore. The saving in freight, lighterage charges, and insurance is large, but can not be definitely stated.

For reference to reports on examinations and surveys, see Annual Report of the Chief of Engineers for the year 1904, page 635.

| | |
|---|---|
| July 1, 1904, balance unexpended | $191,687.67 |
| Amount appropriated by river and harbor act approved March 3, 1905 | 100,000.00 |
| Received from sale of property | 7.50 |
| | 291,695.17 |
| June 30, 1905, amount expended during fiscal year, for works of improvement | 142,927.68 |
| July 1, 1905, balance unexpended | 148,767.49 |
| July 1, 1905, outstanding liabilities | 2,018.14 |
| July 1, 1905, balance available | 146,749.35 |
| July 1, 1905, amount covered by uncompleted contracts | 8,542.57 |
| Amount (estimated) required for completion of existing project | 149,496.68 |

| | |
|---|---|
| Amount that can be profitably expended in fiscal year ending June 30, 1907, for works of improvement, in addition to the balance unexpended July 1, 1905..... | 100,000.00 |
| Submitted in compliance with requirements of sundry civil act of June 4, 1897. | |

(See Appendix S S 3.)

4. San Luis Obispo Harbor, California.—San Luis Obispo Harbor is 9 miles to the southward and westward of the town of San Luis Obispo and 216 nautical miles from San Francisco.

It is a bight of the coast about 18 miles long between Point San Luis on the north and Point Sal on the south. The upper end, where Port Harford is situated, has a wharf and is the part used for commercial



purposes. Whaler reef, extending nearly half a mile to the southward and eastward of Point San Luis, forms more or less of a natural breakwater, but during the winter season the landing was exposed to the heavy swell caused by southerly gales.

The original project was adopted by the river and harbor act of August 11, 1888, and provided for the construction on Whaler reef of a breakwater of rubblestone rising to mean lower low water and extending from Point San Luis to Whaler Island and thence to a point where the outer reef rises above high water. Exclusive of Whaler Island, which is 245 feet long, the breakwater was to have a length of about 1,736 feet, and its estimated cost was $284,898.

This project was modified January 17, 1893, to provide for raising the structure to the height of 6 feet above mean high water, with a top width of 20 feet, and such side slopes as might be formed under the action of the sea. The estimated cost was increased to $568,660. This is the existing project.

The breakwater has been built to full section from Point San Luis to Whaler Island and for 1,160 feet beyond Whaler Island, or a total distance of 1,741 feet, including the island. The partially protected area has an available depth of 21 to 27 feet at low water and there is 22 feet at the Port Harford wharf. The result has been to give increased security to vessels in the anchorage and at the landing.

The amount expended on this work up to the close of the fiscal year ending June 30, 1905, is $279,503.35.

For the expenditure of the $25,000 appropriated by the river and harbor act of March 3, 1905, a contract was entered into with the City Street Improvement Company of San Francisco, Cal., on May 24, 1905, for the delivery in the breakwater of 8,868 tons of stone, at $2.65 per ton. No work under this contract has as yet been done.

Further work under the project will afford increased shelter, and further appropriations should be applied to the extension of the breakwater to its full projected length.

The commerce consists principally of lumber and general merchandise received, and grain and crude oil shipped. Its volume for 1904, 81,620 tons, exceeds that for 1903 by 35.4 per cent. The value of the commerce is estimated at $2,386,000.

It is impracticable to give definite figures relative to the influence of the project on freight rates. The following

however, may throw some light on the matter. The Union Oil Company pumps crude oil through a 6-inch pipe from its wells in the northern part of Santa Barbara County, a distance of 40 to 45 miles, to the landing at Port Harford, and thence ships it in tank vessels to the Hawaiian Islands and coast points. The Standard Oil Company also ships oil from this port. The cost of delivery of oil in San Francisco is about 6 cents per barrel and the oil is sold there from 50 to 60 cents per barrel. The railway rate to San Francisco is about 60 cents per barrel. The present shipment of oil from this harbor is about 200,000 barrels per month, which will be greatly increased at an early date.

Reference to reports on examinations and surveys will be found in Annual Report of the Chief of Engineers for the year 1904, page 636.

644 Report of the Chief of Engineers, U. S. Army.

| | |
|---|---|
| July 1, 1904, balance unexpended | $667.39 |
| Amount appropriated by river and harbor act approved March 3, 1905 | 25,000.00 |
| | 25,667.39 |
| June 30, 1905, amount expended during fiscal year, for works of improvement | 169.79 |
| July 1, 1905, balance unexpended | 25,497.60 |
| July 1, 1905, amount covered by uncompleted contracts | 23,500.00 |
| Amount (estimated) required for completion of existing project | 263,659.05 |

(See Appendix S S 4.)

* * * * * * * * *

## APPENDIX S S.

## IMPROVEMENT OF RIVERS AND HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO.

Report of Capt. C. H. M'Kinstry, Corps of Engineers, Officer in Charge, for the Fiscal Year Ending June 30, 1905, With Other Documents Relating to the Works.

Improvements.

1. San Diego Harbor, California.
2. Deep-water harbor at San Pedro Bay, California.
3. Wilmington Harbor, California.
4. San Luis Obispo Harbor, California.

United States Engineer Office,

Los Angeles, Cal., July 24, 1905.

General: I have the honor to forward herewith annual report on works of river and harbor improvement in my charge for the fiscal year ending June 30, 1905.

Very respectfully, your obedient servant,

C. H. McKinstry,

Captain, Corps of Engineers.

Brig. Gen. A. Mackenzie,

Chief of Engineers, U. S. A.

S S 1.

## IMPROVEMENT OF SAN DIEGO HARBOR, CALIFORNIA.

The jetty.—At the beginning of the fiscal year 104,850 tons of stone had been deposited in the jetty, under contract dated April 1, 1903, with A. E. Babcock, of San Diego, Cal., and the jetty had been built to its full projected length of 7,500 feet, but not to its full height.

This contract was completed July 21, 1904, by which time 3,887 tons of stone was delivered during the fiscal year at a cost, including inspection, of $7,674.40, or $1.975 per ton.

Dredging middle ground.—At the beginning of the fiscal year 34,343 cubic yards of material had been removed from the middle ground and dumped at sea, under contract dated February 27, 1904, with A. A. Polhamus, of San Diego, Cal., and a channel 200 feet wide and 28½ feet deep had been dredged.

During the fiscal year work under this contract was continued until February 2, 1905, by which time 52,745 cubic yards had been dredged



and deposited at sea, completing the contract. A channel 400 feet wide and 26 feet deep was dredged. The cost of this work, including inspection, was $12,500.96, or $0.237 per cubic yard.

Outer bar.—The channel through the outer bar, dredged to a depth of 26 feet over a width of 271 feet under a

contract completed February 13, 1904, shoaled, during a storm March 12 and 13, 1905, to a depth of about 25 feet, which is the maximum draft that can be carried over the bar at the present time. The outer 1,000 feet of the jetty was somewhat beaten down in the same storm.

The present project for the improvement of this harbor is completed, but it is estimated that it will cost about $15,000 a year to maintain the project depths on the outer bar and middle ground.

The river and harbor act of March 3, 1905, appropriated $10,000 for maintenance. No work has been done under this appropriation.

Money statement.

| | |
|---|---|
| July 1, 1904, balance unexpended | $55,871.80 |
| Amount appropriated by river and harbor act approved March 3, 1905 | 10,000.00 |
| | 65,871.80 |
| June 30, 1905, amount expended during fiscal year for works of improvement | 55,733.48 |
| July 1, 1905, balance unexpended | 10,138.32 |
| Amount that can be profitably expended in fiscal year ending June 30, 1907, for maintenance of improvement, in addition to the balance unexpended July 1, 1905 | 15,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897, and of section 7 of the river and harbor act of 1899.

Amount and Date of All Appropriations for the Work Since 1875.

| | | | |
|---|---|---|---|
| March 3, 1875 | $80,000.00 | March 3, 1899 | $65,000.00 |
| March 3, 1879 | 1,000.00 | June 13, 1902 | 75,000.00 |
| August 11, 1888 | 1,000.00 | March 3, 1903 | 192,850.00 |
| September 19, 1890 | 60,500.00 | March 3, 1905 | 10,000.00 |
| July 13, 1892 | 50,000.00 | Repayment | 3.26 |
| August 18, 1894 | 50,000.00 | | |
| June 3, 1896 | 50,000.00 | Total | 635,353.26 |

Abstract of All Contracts in Force.

Contract for completing jetty.

Name of contractor: A. E. Babcock.

Contract entered into April 1, 1903; approved April 18, 1903.

Work to begin June 26, 1903; contract to be completed December 26, 1904.

Contract for delivery of 108,108 tons (of 2,000 pounds each) of rubblestone, at $1.85 per ton.

Contract for dredging on middle ground.

Name of contractor: A. A. Polhamus.

Contract entered into February 27, 1904; approved March 10, 1904.

Work to begin May 14, 1904; contract to be completed November 2, 1904. Time of completion extended for a reasonable period.

Contract completed February 2, 1905.

Contract for dredging 84,444 cubic yards, at 22½ cents per cubic yard.

Commercial Statistics for the year Ending December 31, 1904.

[Furnished by the collector of customs at San Diego, Cal.]

| | | Incoming. | Outgoing. |
|---|---|---|---|
| Vessels: | | | |
| Steam | | 272 | 259 |
| Sailing | | 82 | 86 |
| Total | | 354 | 345 |
| Tonnage | | 254,090 | 136,452 |
| Draft, greatest | feet | 26 1/6 | 24 |
| Merchandise, general | tons | 23,686 | 8,420 |
| Coal | do | 17,134 | 106 |
| Cement | do | 10,037 | 102 |
| Ores | do | 480 | 1,853 |
| Lumber | feet | 28,969,000 | 965,000 |

Total amount of freight entered and cleared in 1904, 121,686 tons, a decrease of 7.6 per cent from that of the preceding year.

No lines of transportation have been established or abandoned during the year.

## S S 2.

## DEEP-WATER HARBOR AT SAN PEDRO BAY, CALIFORNIA.

The construction of the breakwater was continued during the year, under continuing contract dated June 7, 1900, with the California Construction Company, of San Francisco, Cal.

At the beginning of the fiscal year 1,566,093 tons of stone had been deposited in the substructure, which had been raised to mean lower low water, and was about completed for the length of 7,284 feet from its westerly end, and 43,276 tons had been placed in the superstructure. The amount of superstructure work done was the equivalent of 1,400 feet of completed wall.

During the fiscal year ending June 30, 1905, 68,209 tons of sandstone and 253,245 tons of granite, a total of 321,454 tons, was placed in the substructure, and 28,889 tons of granite in the superstructure. This makes a total of 1,887,547 tons in the substructure, 72,165 tons in the superstructure, and 1,959,712 tons under the contract. During the fiscal year the double-track trestle was extended 672 feet, making its total length 8,548 feet. During a severe storm of March 12 and 13, 1905, 208 feet of this trestle was knocked down by the sea. This trestle has since been rebuilt and extended 128 feet, making its total length 8,676 feet.

The substructure is to mean lower low water and about completed for a length of 8,212 feet, and some stone has been deposited for the further distance of 288 feet. Work has been done on the superstructure over a length of 2,880 feet, commencing 628 feet from the westerly end

of the breakwater. The amount of stone placed in the superstructure is equivalent to about 2,652 feet of completed work. While the quantities of stone delivered during certain months have fallen short of the contract requirements for those months, the total quantity delivered to date is in excess of contract requirements.

As work under this contract progressed it became evident that a breakwater greater than 8,500 feet in length could be built for the



$2,900,000 which, according to the project, is the limit of cost for the work. Department authority was therefore obtained January 11, 1905, to extend this breakwater to a total length of at least 9,000 feet. The contract is about 70.8 per cent completed.

Eighteen experimental 16,000-pound concrete blocks have been made to test the action of sea water on concrete made from different cements in general use in this market and mixed in different proportions with sand and broken stone. These blocks have not yet been placed on the breakwater.

The work on the breakwater, particularly the substructure, has already advanced far enough to shelter, in stormy weather, a large anchorage area and the entrance to the inner harbor.

The total amount expended on this work to June 30, 1905, is $1,848,955.01.

The available balance, together with any additional appropriations, should be expended in extending the breakwater under contract and for contingencies.

## Money statement

| | |
|---|---|
| July 1, 1904, balance unexpended | $523,848.20 |
| Amount appropriated by sundry civil act approved March 3, 1905 | 460,000.00 |
| | 983,848.20 |
| June 30, 1905, amount expended during fiscal year, for works of improvement | 415,718.16 |
| July 1, 1905, balance unexpended | 568,130.04 |
| July 1, 1905, outstanding liabilities | 46,742.51 |
| July 1, 1905, balance available | 521,387.53 |
| July 1, 1905, amount covered by uncompleted contracts | 820,869.35 |
| Amount (estimated) required for completion of existing project | 482,914.95 |
| Amount that can be profitably expended in fiscal year ending June 30, 1907, for works of improvement, in addition to the balance unexpended July 1, 1905. Submitted in compliance with requirements of sundry civil act of June 4, 1897. | 300,000.00 |

Amount and Date of All Appropriations for the Work.

| | | | |
|---|---|---|---|
| June 3, 1896.... | [b]$50,000.00 | March 3, 1905 | $460,000.00 |
| July 1, 1898.... | 400,000.00 | | |
| March 3, 1889 | 200,000.00 | Total..... | 2,417,085.00 |
| March 3, 1901 | 146,000.00 | Received from | |
| June 28, 1902.. | 311,085.00 | sale of property ..... | .05 |
| March 3, 1903 | 500,000.00 | | |
| April 28, 1904 | 350,000.00 | Total..... | 2,417,085.05 |

[a]This estimate is for a breakwater about 9,000 feet long (Department authority of January 11, 1905). In previous reports this estimate contemplated a breakwater 8,500 feet long.

[b]Of the appropriation of $50,000 made by river and harbor act of June 3, 1896, for deep-water harbor at Santa Monica Bay, or San Pedro Bay, California, $35,555.76 was expended by the Board provided for by said act. For the full report of the Board, with its accompanying documents, see Senate Document No. 18, Fifty-fifth Congress, first session.

Appendix S S—Report of Captain M'Kinstry. 2413

Abstract of All Contracts in Force.

Contract for construction of breakwater.

Name of contractor: California Construction Company.

Contract entered into June 7, 1900; approved June 27, 1900.

Work to begin August 4, 1900; contract to be completed December, 1906, provided adequate appropriations are made by Congress.

Rates:

For substructure stone, $0.844 per ton of 2,240 pounds.

For superstructure stone, $3.10 per ton of 2,240 pounds.

For concrete, $6 per cubic yard.

Quantities (estimated):

Stone in substructure, 2,135,958 tons; stone in superstructure, 235,275 tons; total, 2,391,233 tons.

Concrete, 2,370 cubic yards.

Total consideration of contract (approximate): $2,563,046.05.

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Commercial Statistics for Year Ending December 31, 1904.

For commercial statistics see report of Wilmington Harbor, California.

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S S 3.

## IMPROVEMENT OF WILMINGTON HARBOR, CALIFORNIA.

The dredge.—The contract dated October 17, 1903, with Ellicott Machine Company, of Baltimore, Md., for the construction of the 20-inch suction dredge San Pedro, which was in force at the beginning of the fiscal year, was completed March 10, 1905. The cost of the dredge, including inspection, was $99,453.33.

Launch.—The emergency contract, entered into June 8, 1904, with H. E. Carse, of San Pedro, Cal., for the construction of the 30-foot gasoline launch Pedrito, was completed August 2, 1904, at a cost of $1,732.50.

Discharge pipe line for dredge.—A 20-inch discharge pipe 2,048 feet long and 4 elbows were purchased under emergency contract dated May 12, 1904, with the Baker Iron Works, of Los Angeles, Cal., for $3,023.08; and 25 rubber sleeves, 21½ inches in diameter and 3 feet long, were purchased under emergency contract dated May 14, 1904, with the New Jersey Car Spring and Rubber Company, of Jersey City, N. J., for $1,275.

Work done by day labor.—The lumber and hardware necessary for the construction of pontons and barges were delivered, and 24 pontons and 3 barges were constructed by day labor at a cost, including all labor and material, of $6,500.62. Four skiffs were built at a total cost of $154.34. A boat landing 106 feet long was built for $72.25; two sets of inclined ways, 130 and 135 feet long, respectively, extending westerly from the double work of the east jetty, were built at a cost of $395.85, and the Government warehouses repaired at a cost of $66.08.

Dredging under contract.—Under the contract entered into November 24, 1902, with Raymond A. Perry, of Oakland, Cal., there was dredged from alongside Deadmans Island (division A) 14,236 cubic yards of material at a cost, including inspection, of $7,118, completing



the contract August 20, 1904. There had previously been removed 108,734 cubic yards from division A and 249,340

from division B (the entrance above Deadmans Island and along the docks on either side of the inner harbor). The cost of the dredging in division A was 50 cents per cubic yard, and in division B 16 cents per cubic yard. The result of this dredging was the formation of a channel 400 feet wide and 20 feet deep alongside Deamans Island, and 150 feet wide and 20 feet deep in the channel above Deadmans Island. The dredging along the docks was carried generally to the depth of 20 feet. The governing depth in the outer bar remains about 18 feet.

Dredging with Government dredge.—The dredge San Pedro was placed in commission April 1, 1905, and at once began dredging in accordance with the approved project. One crew, working nine hours a day, was employed until April 4, 1905, when a second crew was put on and the machine operated sixteen hours a day until April 19, 1905, since which date the dredge has been operated twenty-four hours a day, Sundays and holidays excepted, three crews being employed.

Dredging to a depth of from 20 to 24 feet below mean lower low water was done in front of the wharfs of the Southern California Lumber Company and the Salt Lake Railroad Company, and 227,464 cubic yards of material was removed and deposited behind bulkhead lines on Terminal Island and to the east of the east jetty. This work, including superintendence, cost $16,105.96, or $0.07 per cubic yard. The material removed consisted principally of sand intermingled with mud and a small percentage of claw, cobbles, and disintegrated sandstone. During the period of the efficiency test of the dredge, before final acceptance from the contractors, 16,450 cubic yards of material was dredged in front of the Southern

California Lumber Company's wharf at a cost, including superintendence, of $1,682.46, or a cost of $0.10 per cubic yard.

The amount expended under the existing project to June 30, 1905, is $251,743.33. So far as material removed is concerned, the dredging project is about 14 per cent completed. The project as a whole is about 45.7 per cent completed.

The river and harbor act of March 3, 1905, appropriated $100,000 for continuing work under this project, and authorized contracts in the sum of $150,000 more for completing it. Seventy thousand dollars will be expended in dredging under contract on the bar at the entrance to the harbor, and the remainder will be expended in dredging with Government dredge, or in dredging under contract, as may appear most advisable, and for contingencies.

Money statement.

| | |
|---|---|
| July 1, 1904, balance unexpended | $191,687.67 |
| Amount appropriated by river and harbor act approved March 3, 1905 | 100,000.00 |
| Received from sale of property | 7.50 |
| | 291,695.17 |
| June 30, 1905, amount expended during fiscal year, for works of improvement | 142,927.68 |
| July 1, 1905, balance unexpended | 148,767.49 |
| July 1, 1905, outstanding liabilities | 2,018.14 |
| July 1, 1905, balance available | 146,749.35 |

July 1, 1905, amount covered by uncompleted contracts ..... $ 8,542.57

Amount (estimated) required for completion of existing project..... 149,496.68

Amount that can be profitably expended in fiscal year ending June 30, 1907, for works of improvement, in addition to the balance unexpended July 1, 1905..... 100,000.00
Submitted in compliance with requirements of sundry civil act of June 4, 1897.

Appropriations.

| | | | |
|---|---|---|---|
| March 3, 1871 | $200,000.00 | September 19, 1890 | $34,000.00 |
| June 10, 1872 | 75,000.00 | July 13, 1892 | 51,000.00 |
| March 3, 1873 | 150,000.00 | June 3, 1896 | 50,000.00 |
| March 3, 1875 | 30,000.00 | June 13, 1902 | 250,000.00 |
| June 18, 1878 | 20,000.00 | March 3, 1905 | 100,000.00 |
| March 3, 1879 | 12,000.00 | | |
| June 14, 1880 | 35,000.00 | Total | 1,355,000.00 |
| March 3, 1881 | 33,000.00 | Received from sale of property | 8.50 |
| August 2, 1882 | 100,000.00 | | |
| July 5, 1884 | 50,000.00 | Aggregate | 1,355,008.50 |
| August 5, 1886 | 75,000.00 | | |
| August 11, 1888 | 90,000.00 | | |

Abstract of All Contracts in Force.

Contract for dredging.

Name of contractor: Raymond A. Perry.

Contract entered into November 24, 1902; approved December 11, 1902.

Work to begin in division A, February 14, 1903; in division B, March 16, 1903. Contract to be completed, for division A, October 14, 1903; for division B, November 26, 1903. Date of completion extended to September 14, 1904.

Contract for dredging 120,000 cubic yards at 50 cents per cubic yard in division A, and 250,000 cubic yards at 16 cents per cubic yard in division B.

Contract for construction of dredge.

Name of contractor: Ellicott Machine Company.

Contract entered into October 17, 1903; approved November 6, 1903.

Work to begin December 12, 1903. Contract to be completed May 12, 1904. Date of completion extended for a reasonable period. Completed March 10, 1905.

Contract for construction of a 20-inch suction dredge for $98,400.

Contract for furnishing hardware for pontons.

Name of contractor: H. E. Carse.

Contract entered into May 6, 1904; approved June 3, 1904.

Delivery to be made July 24, 1904.

Amount of contract, $1,049.09.

Contract for furnishing discharge pipe.

Name of contractor: Baker Iron Works.

Contract entered into May 12, 1904; approved June 3, 1904.

Delivery to be made August 8, 1904. Date of completion extended to August 22, 1904.

Contract for furnishing 2,048 feet of 20-inch discharge pipe and 4 elbows for $3,023.08.

Contract for furnishing rubber sleeves.

Name of contractor: New Jersey Car Spring and Rubber Company.

Contract entered into May 14, 1904; approved June 17, 1904.

Delivery to be made August 22, 1904.

Contract for furnishing 25 rubber sleeves, 21½ inches diameter, 3 feet long, for $1,275.



Emergency contract for launch.

Name of contractor: H. E. Carse.

Contract entered into June 8, 1904.

Work to begin June 8, 1904; contract to be completed July 20, 1904. Date of completion extended to August 3, 1904.

Contract for gasoline launch, 30 feet long, 7-foot beam, with 16-horsepower "Standard" engine, for $1,732.50.

Emergency contract for furnishing gasoline.

Name of contractor: William S. Miller.

Contract entered into December 1, 1904.

Deliveries to begin December 1, 1904.

Contract to be completed December 1, 1905.

Contract for furnishing 3,000 gallons of gasoline for $375.

Emergency contract for furnishing lubricating oils, etc.

Name of contractor: William S. Miller.

Contract entered into December 14, 1904.

Deliveries to begin December 20, 1904.

Contract to be completed December 20, 1905.

Contract for furnishing lubricating oils, etc., for dredge for $1,410.70.

Contract for furnishing crude oil.

Name of contractor: William S. Miller.

Contract entered into December 30, 1904; approved January 19, 1905.

Deliveries to begin January 31, 1905.

Contract to be completed January 31, 1906.

Contract for furnishing 16,000 barrels of crude oil for fuel for dredge. Amount, $9,920.

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## Commercial Statistics for the Year Ending December 31, 1904.

[Furnished by the collector of customs at Los Angeles, Cal.]

| | Incoming. | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 948 | 939 |
| Sailing | 382 | 382 |
| Total | 1,330 | 1,321 |
| Tonnage | 515,047.0 | 504,020.0 |

| | | | |
|---|---|---|---|
| Draft, greatest: | | | |
| Outer harbor | feet | 23.6 | 20.5 |
| Inner harbor | do | 21.0 | 20.5 |
| Merchandise, general | tons | 11,715.0 | 11,149.0 |
| Asphalt | do | 583.0 | 1,743.0 |
| Coal | do | 3,262.0 | ..... |
| Grain | do | 15,649.0 | ..... |
| Steel rails | do | 11,760.0 | ..... |
| Fish plates | do | 672.0 | ..... |
| Pig iron | do | 767.0 | ..... |
| Fertilizers | do | 168.0 | ..... |
| Lumber | feet | 391,839.082.0 | ..... |
| Crude oil | barrels | 22,340.0 | 200.0 |
| Sheep | | 6,372.0 | ..... |

Of the above amounts, 13,400 tons was foreign commerce.

Total amount of freight entered and cleared in 1904, 845,220 tons, an increase of 9.9 per cent over the preceding year.

No lines of transportation have been established or abandoned during the year.

Appendix S S—Report of Captain M'Kinstry. 2417

Report of Mr. R. A. Crawford, Assistant Engineer.

San Pedro, Cal., July 8, 1905.

Captain: I have the honor to submit a statement showing distribution of accounts and expenditures for labor, plant, material, and supplies incurred in the improvement of Wilmington Harbor, California, during the fiscal year ending June 30, 1905, and the work accomplished.

Statement of expenditures.

| | | |
|---|---|---|
| Routine office work (labor) | | $1,474.97 |
| Care of plant and property (labor) | | 820.80 |
| Surveys: | | |
| Labor | $ 342.50 | |
| Supplies | 9.50 | |
| | | 352.00 |
| Tools and other property made and purchased: | | |
| Labor | 301.00 | |
| Purchases | 392.03 | |
| | | 693.03 |
| New plant: | | |
| Launch Pedrito | 1,732.50 | |
| Labor | 3,600.29 | |
| Material | 7,248.45 | |
| | | 12,581.24 |
| Building dock at United States engineer warehouses: | | |
| Labor | 45.00 | |
| Material | 27.25 | |
| | | 72.25 |
| Repairing warehouses: | | |
| Labor | 35.70 | |
| Material | 30.38 | |
| | | 66.08 |
| Building inclined ways: | | |
| Labor | 215.71 | |
| Material | 180.14 | |
| | | 395.85 |
| Superintendence and inspection, dredging in division A, Perry contract (labor) | | 320.00 |

| | | |
|---|---|---|
| Superintendence and inspection dredge San Pedro (labor) | | 1,648.92 |
| Testing dredge San Pedro: | | |
| Labor | $1,388.46 | |
| Supplies | 294.00 | |
| | | 1,682.46 |
| Towing and dispatch work, launch Pedrito: | | |
| Labor | 710.67 | |
| Supplies | 167.68 | |
| | | 878.35 |
| Alterations and repairs to dredging plant: | | |
| Labor | 1,562.63 | |
| Material | 869.89 | |
| | | 2,432.52 |
| Operating dredge: | | |
| Labor | 6,452.13 | |
| Supplies | 3,632.41 | |
| | | 10,084.54 |

Work accomplished.

Dredge San Pedro.—This 20-inch suction dredge, which was under construction at the close of the last fiscal year by the Ellicott Machine Company, of Baltimore, Md., was completed March 10, 1905; on March 13, 1905 it was turned over to the United States for the tests prescribed in the specifications. These tests continued until March 25, 1905; their results fulfilled all the requirements and were very satisfactory. After the contractors had made a number of minor alterations and repairs as a result of the final inspection made at the close of these tests the dredge was accepted from them on March 30, 1905. The cost of the work on dredge during the fiscal year, in-

cluding superintendence and inspection charges, was $82,086.12.

Eng 1905 M-152

2418 Report of the Chief of Engineers, U. S. Army.

Auxiliary floating plant.—The gasoline launch Pedrito, which was under construction at the close of the last fiscal year by H. E. Carse, of San Pedro, Cal., was completed August 2, 1904, and turned over to the United States. It has a length over all of 30 feet 1½ inches, beam of 7 feet, and depth of 3 feet 3 inches and is propelled by a 16-horsepower "Standard" engine. On test, the speed attained in quiet water was 9.32 statute miles per hour. This launch is in constant attendance upon the dredge and is used for towing pontons with discharge pipe, and lighters of oil and water, delivering material and supplies, and for dispatch work. It has proven a very valuable acquisition to the plant.

A small force of carpenters, calkers and laborers was organized July 7, 1904, and employed until October 31, 1904, in constructing, by hired labor, the following pieces of floating plant: 9 pontons, each 35 feet by 10 feet by 3 feet; 15 pontons, each 21 feet 3 inches by 10 feet by 3 feet; 1 water boat, 34 feet 9 inches by 10 feet by 4 feet 6 inches; 1 oil boat, 34 feet 9 inches by 10 feet by 4 feet 6 inches; 1 derrick boat, 29 feet 6 inches by 10 feet 7 inches by 3 feet 10 inches.

The total cost of the above, including all labor and materials, was $6,500.62.

Four skiffs were built during the months of January and February, by hired labor, at a total cost for labor and materials of $154.34.

Building dock.—A dock 106 feet long, extending out from the United States engineer warehouses on east jetty, over the sand spit, was built to facilitate the handling of material and supplies for the dredge. The two old unserviceable lighters, Nos. 2 and 3, were used for the purpose, being placed end-on on substantial supports above a stage of high water and connected with the jetty. The total cost of this work, including labor and material, was $72.25.

Repairing warehouses.—The two small United States engineer warehouses on east jetty, which were damaged September 5, 1904, by heavy swell from the southeast, were repaired at a total cost for labor and material of $66.08.

Building inclined ways.—Two sets of inclined ways, 130 and 135 feet long, respectively, extending westerly from the double work of east jetty just northward of the United States engineer dock, and having a slope of about 1 on 12, were built by hired labor during the month of November, 1904, on which could be pulled out and repaired, when necessary, any of the pieces of floating plant attendant upon the dredge. Their cost, including all labor and material, was $395.85.

Dredging.—Dredging alongside of Deadmans Island (division A) was continued under a contract with Raymond A. Perry and was completed August 20, 1904; 14,236 cubic yards of material were removed during the fiscal year. The contract price was 50 cents per cubic yard; the total cost, including superintendence and inspection charges and surveys during the fiscal year, and retained percentages during period of contract, was $15,832.15. The material was sand, clay, and fragmental rock in varying propor-

tions. Soundings taken over the dredged area after the completion of the contract showed a minimum depth of 20 feet below mean lower low water throughout the entire division. The outer bar at entrance to harbor carried a depth of 18 feet below mean lower low water at the close of the fiscal year. It might be stated that this depth is for a very short distance, scarcely more than 50 feet.

During the efficiency test and final inspection of the dredge San Pedro, prior to its acceptance by the United States, 16,450 cubic yards of material were removed from the harbor within the lines of the project, northward of the northerly end of the Southern California Lumber Company's wharf, and deposited behind a bulkhead built by the Salt Lake Railway Company across the slough abreast of Terminal Island station. The total cost for labor employed, including superintendence, and for the fuel, water, and other supplies expended on account of this work, was $1,682.46, or at an average cost of 10 2/10 cents per cubic yard of material handled.

The dredge San Pedro was placed in commission April 1, 1905, and at once began the dredging of the inner harbor in accordance with the approved project. One crew, working nine hours a day, was employed until April 4, when a second crew was put on and the machine operated sixteen hours a day. A third crew was put on on April 19, since which date the dredge has been operated twenty-four hours a day, Sundays and holidays excepted. A channel alongside the northerly 275 feet of the Southern California Lumber Company's wharf, and an approach to same from the north of 275 feet, were dredged. Both had an average width of 170 feet, and were carried to a depth of about 24 feet below mean lower low water. This work

continued until April 22, when 40,865 cubic yards of material had been removed. It was pumped through 1,700 to 2,000 feet of pipe, and placed in the slough and on the flats behind the previously mentioned bulkhead abreast of Terminal Island station. The material consisted of sand, shell, and a small per cent of mud, very compact and hard to handle with the cutter.

Appendix S S—Report of Captain M'Kinstry. 2419

On April 24 the San Pedro was moved to the northerly end of the Salt Lake Railway Company's wharf, at East San Pedro, Cal., where the needs of commerce were more imperative, and began working south along their wharf. With the exception of sixteen days, May 15 to 30, when the dredge was laid up undergoing some general alterations and repairs, and other short stops from time to time to make minor repairs incident to the work, dredging in this locality has been continuous and was still in progress at the close of the fiscal year. A cut along the wharf and easterly pierhead line, having a total length of 1,650 feet and width of 170 feet, was made. A second cut was begun on the middle ground abreast of the first and carried south 220 feet for a width of 170 feet. With few exceptions the area covered has been carried to a depth of 24 to 26 feet below mean lower low water; 186,599 cubic yards of material were removed, pumped through 600 to 1,575 feet of discharge pipe, and deposited east of the east jetty and northward of the stone spur. This material consisted principally of sand intermingled with shell

and a small per cent of clay, cobbles, and disintegrated sandstone. The following statement shows the cost of dredging since the San Pedro has been in commission:

| | |
|---|---|
| Routine office work, labor | $ 673.33 |
| Care of plant and property, labor | 180.00 |
| Surveys, labor and supplies | 155.63 |
| Towing and dispatch work, labor, fuel, and supplies | 316.00 |
| Alterations and repairs to dredging plant, labor and material | 2,432.52 |
| Operating dredge, including superintendence and labor charges, fuel, fresh water, lubricants, and all other supplies | 10,084.54 |
| Deterioration of plant and property, estimated | 2,263.94 |
| Total cost of dredging, April 1 to June 30, 1905 | 16,105.96 |

Total amount of material removed, 227,464 cubic yards.

Cost per cubic yard, $0.0708.

Very respectfully, your obedient servant,

R. A. Crawford,
Assistant Engineer.

Capt. C. H. McKinstry,
Corp of Engineers.

S S 4.

## IMPROVEMENT OF SAN LUIS OBISPO HARBOR, CALIFORNIA.

No work was done during the fiscal year.

The project is about 50 per cent completed.

On May 24, 1905, a contract was entered into with the City Street Improvement Company, of San Francisco, Cal., for the expenditure of the $25,000 appropriated by river and harbor act of March 3, 1905. The contract calls for the delivery in the breakwater of 8,868 tons of stone, at $2.[illegible] per ton, and this stone will be placed in extension of the existing work and to the height of high water.

The approved project for this breakwater contemplates a structure rising to 6 feet above high water. Further appropriations will be expended in extending the breakwater to its full height and length.

Money statement.

| | | |
|---|---|---|
| July 1, 1904, balance unexpended | $ | 667.39 |
| Amount appropriated by river and harbor act approved March 3, 1905 | | 25,000.00 |
| | | 25,667.39 |
| June 30, 1905, amount expended during fiscal for works of improvement | | 169.79 |
| July 1, 1905, balance unexpended | | 25,497.60 |

| | |
|---|---|
| July 1, 1905, amount covered by uncompleted contracts | 23,500.00 |
| Amount (estimated) required for completion of existing project | 263,659.05 |
| Amount that can be profitably expended in fiscal year ending June 30, 1907, for works of improvement, in addition to the balance unexpended July 1, 1905. Submitted in compliance with requirements of sundry civil act of June 4, 1897. | 100,000.00 |

Appropriations.

| | | | |
|---|---|---|---|
| August 11, 1888 | $25,000.00 | March 3, 1905 | $ 25,000.00 |
| September 19, 1890 | 40,000.00 | Total | 305,000.00 |
| July 13, 1892 | 30,000.00 | Received from sale of property | .95 |
| August 18, 1894 | 40,000.00 | | |
| June 3, 1896 | 40,000.00 | | |
| March 3, 1899 | 55,000.00 | | |
| June 13, 1902 | 50,000.00 | Total | 305,000.95 |

Abstract of All Contracts in Force.

Contract for continuing construction of breakwater.

Name of contractor: City Street Improvement Company.

Contract entered into May 24, 1905; approved June 19, 1905.

Work to begin August 26, 1905; contract to be completed January 26, 1906.

Contract for delivery of 8,868 tons (of 2,000 pounds each) of rubble stone, at $2.65 per ton.

---

Commercial Statistics for the Year Ending December 31, 1904.

[Furnished by the Pacific Coast Steamship Company.]

| | Incoming. | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 259 | 259 |
| Sailing | ..... | ..... |
| Total | 259 | 259 |
| Tonnage | 148,718 | 148,718 |
| Draft, greatest.....feet.. | 21½ | 21½ |
| Merchandise, general.....tons.. | 11,898 | 1,403 |
| Coal .....do.... | 354 | 20 |
| Lumber .....feet .. | 7,140,412 | ..... |
| Grain .....tons.. | 145 | 26,770 |
| Bituminous rock.....do.... | ..... | 2,008 |
| Dairy products.....do.... | 7 | 192 |
| Live stock.....do.... | 3 | 8 |
| Crude oil.....barrels.. | ..... | 147,511 |

Total amount of freight entered and cleared in 1904, 81,620 tons; an increase of 35.4 per cent over that of the preceding year.

No lines of transportation have been established or abandoned during the year.

UNITED STATES [Emblem] OF AMERICA
WAR DEPARTMENT

Washington, November 15, 1930.

I hereby certify that the attached pamphlet is a true copy of an extract from the Annual Report of the Chief of Engineers, 1905, on file in the Office of the Chief of Engineers, United States Army.

Lytle Brown
Lytle Brown,
Major General,
Chief of Engineers.
BW

I hereby certify that Lytle Brown, who signed the foregoing certificate, is the Chief of Engineers, United States Army, and that to his certification as such full faith and credit are and ought to be given.

In testimony whereof I, Patrick J. Hurley, Secretary of War, have hereunto caused the Seal of the War Department to be affixed and my name to be subscribed by the Assistant and Chief Clerk of the said Department, at the City of Washington, this 18th day of November, 1930.

[Seal]

Patrick J. Hurley
Secretary of War.
By John C. Scofield
Assistant and Chief Clerk.

No. Q-12-J. City of LA vs. Borax Plf Exhibit No. 24 Filed 11/14 1933 R. S. Zimmerman, Clerk By Cross Deputy Clerk

# ANNUAL REPORT

Upon the

# IMPROVEMENT OF HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO,

in the Charge of

W. H. HEUER,
Colonel, Corps of Engineers, U. S. A.,
C. H. McKINSTRY,
Major, Corps of Engineers, U. S. A.,
and
AMOS A. FRIES,
Captain, Corps of Engineers, U. S. A.;

Being

APPENDIX T T

of the

Annual Report of the Chief of Engineers for 1906.

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WASHINGTON:
Government Printing Office.
1906.

[EXTRACT FROM THE ANNUAL REPORT OF THE CHIEF OF ENGINEERS TO THE SECRETARY OF WAR.]

War Department,
Office of the Chief of Engineers,
Washington, September 29, 1906.

* * * * * * *

## IMPROVEMENT OF HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO.

This district was in the charge of Maj. C. H. McKinstry, Corps of Engineers, to August 31, 1905, and from

October 16, 1905, to February 10, 1906; in the temporary charge of Col. W. H. Heuer, Corps of Engineers, from August 31 to October 16, 1905, and in the charge of Capt. Amos A. Fries, Corps of Engineers, since February 10, 1906. Division engineer, Col. T. H. Handbury, Corps of Engineers, to August 31, 1905, and Col. W. H. Heuer, Corps of Engineers, since October 16, 1905.

1. San Diego Harbor, California.—San Diego Harbor is just north of the national boundary of Mexico and 482 nautical miles south of San Francisco.

The river and harbor act approved March 3, 1875, appropriated $80,000 for the construction of a dike across the mouth of San Diego River, causing it to empty into False Bay, and thus preventing San Diego Harbor from being injured by the deposit of material brought down during flood stages. This work was completed in 1876 at a cost of $79,798.72, which, with the cost of repairs made up to the time of adoption of the present project, brought the total expenditures to $81,918.45.

The later project for the improvement of the harbor, adopted by the river and harbor act approved September 19, 1890, provided for the construction of a jetty on Zuninga shoal, at the entrance to the harbor; the maintenance of a channel 24 feet deep at mean low tide



and 500 feet wide thru the "middle ground," and for repairs to restraining dike. The jetty was to rise to the height of extreme high water and to be about 7,500 feet long, with a view to producing a depth of 26 feet at mean lower low water on the outer bar.

At the time of the adoption of this project the governing depth on the bar was 21 feet. Just inside the entrance was a middle ground carrying but 17 feet of water. The main channel, lying to the west of the middle ground, was of ample depth, but was difficult of navigation on account of two sharp turns.

The original estimated cost of this improvement was $394,400. This estimate was increased in June, 1900, to $542,850.

The appropriation of $192,850 in the sundry civil act of March 3, 1903, brought the total of appropriations up to the amount of the revised estimate.

The jetty has been extended to its full contemplated length of 7,500 feet, a channel 26 feet deep and 271 feet wide (28 feet deep over a width of 171 feet) has been dredged across the outer bar, and a channel 26 feet deep and 400 feet wide has been dredged across the middle ground. The channels thru the outer bar and the middle ground have both shoaled to 24 feet depth, which is the maximum draft that could be carried into San Diego Harbor on June 30, 1906, at mean lower low water. The average height of all high waters above the plane of reference is 4.8 feet.

The river and harbor act of March 3, 1905, appropriated $10,000 for the maintenance of these channels.

Proposals for dredging the channel thru the outer bar were invited by advertisements in February and in March, 1906. Only one bid of 99 cents per cubic yard was received in response to the two advertisements, but was rejected, as it was considered excessive. An informal bid of 75 cents per cubic yard was later received, but as this

would give but 12,000 yards of dredging it was not accepted.

The total amount expended to June 30, 1906, is $625,555.90. Of this, $5,254.54 was applied to maintenance, viz, to repairing the restraining dike and for surveys. Further repairs to the dike have been made by the city of San Diego.

The commerce of this harbor was 159,433 tons for the calendar year 1905, an increase of 31 per cent over that of the previous year. It consists principally of lumber, general merchandise, coal, and cement received, and of lumber, general merchandise, and ore shipped. The value of this commerce is estimated to be $11,614,000.

The coastwise trade is carried in vessels drawing from 12 to 18 feet of water, and is benefited but little by the improvement of the harbor. The American-Hawaiian steamers, of 8,000 to 10,000 tonnage each, enter this port once a month. These vessels draw about 26 feet of water and carry 1,000 to 2,000 tons of freight per month for San Diego. Freight for San Diego carried by the Panama steamers is delivered by coastwise steamers from San Francisco. The American-Hawaiian steamers and the Panama steamers have a rate from the Atlantic ports to San Diego averaging about 30 per cent cheaper than railroad rates. Foreign cements are received in this port in sailing vessels drawing 22 and 23 feet of water.

For reference to reports on examinations and surveys, see Annual Report of the Chief of Engineers for the year 1904, page 632.

| | |
|---|---|
| July 1, 1905, balance unexpended | $10,138.32 |
| June 30, 1906, amount expended during fiscal year, for maintenance of improvement | 340.96 |
| July 1, 1906, balance unexpended | 9,797.36 |
| July 1, 1906, outstanding liabilities | 21.28 |
| July 1, 1906, balance available | 9,776.08 |

Amount that can be profitably expended in fiscal year ending June 30, 1908, for maintenance of improvement, in addition to the balance unexpended July 1, 1906 ..... 20,000.00

Submitted in compliance with requirements of sundry civil act of June 4, 1897, and of section 7 of the river and harbor act of 1899.

(See Appendix T T 1.)

2. Deep-water harbor at San Pedro Bay, California.—The river and harbor act of June 3, 1896, provided for the appointment of a Board to determine upon the location of a deep-water harbor for commerce and of refuge in Santa Monica Bay, California, or at San Pedro, in the same State, the decision of a majority of the Board as to location to be final. The Board was to make plans, specifications, and estimates for said improvement. After the Board should have rendered its decision and submitted its report the Secretary of War was empowered to make contracts for the completion of the selected harbor in accordance with the project of the Board, at a cost not exceeding in the aggregate $2,900,000.

In accordance with the provisions of this act a Board was appointed which submitted its report March 1, 1897, deciding in favor of San Pedro Bay. The report of the Board is printed in Senate Document No. 18, Fifty-fifth Congress, first session.

The plan of the Board (the present project of improvement) was to construct, to the eastward of Point Fermin, a breakwater about 8,500 feet long, or as much longer as could be constructed within the authorized limit of cost, $2,900,000, and it has been decided that a breakwater 9,000 feet long should be built. In plan the breakwater is to consist of two straight arms connected by a curve 1,800 feet in length, of 1,910 feet radius. The westerly arm is to be 3,000 feet long, pointing S. 72° E. (magnetic); the easterly arm, 3,700 feet long, pointing N. 54° E (magnetic). A gap of about 2,000 feet is to be left between the east shore of Point Fermin and the westerly end of the breakwater.

Originally San Pedro Bay was an open roadstead exposed to the southeasterly, southerly, and southwesterly winds. The effect of the breakwater will be to afford a place of refuge, easy of access, and secure from storms, for vessels of the largest size. It will also shelter the entrance to the inner harbor of San Pedro.

On August 12, 1898, a continuing contract was entered into with Heldmaier & Neu, of Chicago, Ill., for the construction of the breakwater, for $1,303,198.54. This contract was annulled on March 19, 1900, on account of unsatisfactory progress. Up to that time 84,581 tons of stone had been placed in the substructure, at a cost, including inspection, etc., of $51,537.43.

On June 7, 1900, a continuing contract for completing the breakwater was entered into with the California Con-

struction Company, of San Francisco, Cal. The estimated cost of work under this contract, using the quantities on which bids were canvassed and the



prices bid for stone and concrete, and allowing 10 per cent for engineering expenses and contingencies, is $2,613,100.66, in addition to expenditures under the former contract. This estimate is for a breakwater 8,500 feet long. The extension of the breakwater to 9,000 feet in length is estimated to cost about $206,250 additional.

The amount expended under the project up to the close of the fiscal year ending June 30, 1906, is $2,107,152.85, including the expenditures of the Board referred to above.

Work was begun at the westerly end of the substructure. Up to June 30, 1906, 1,967,204 long tons of stone, at $0.844 per ton, had been deposited in the substructure under the present contract, and the substructure was about completed for a distance of 8,452 feet.

The superstructure was begun at a distance of 628 feet from the westerly end and is being built to the eastward. To June 30, 1906, 121,265 long tons of stone had been placed in the superstructure, at $3.10 per ton, and this, while partially completing it over a length of 5,550 feet, is equivalent to 4,500 feet of completed work.

The protected area is used by vessels which have to lighter a part of their cargo or have to await a favorable tide before they can enter the inner harbor. The effect of continuing work under the existing project will be to enlarge the protected area and to increase the shelter afforded the entrance to the inner harbor.

The available balance and additional appropriations will be expended in extending the breakwater under contract.

There are as yet no commercial wharves in the outer, or breakwater, harbor. Applications, however, are being received for the construction of bulkheads, etc., and it is expected that facilities for commerce will be greatly developed during the year. For commercial statistics, see report on Wilmington Harbor.

For reference to report on examinations and surveys, see Annual Report of the Chief of Engineers for the year 1904, page 634.

| | |
|---|---|
| July 1, 1905, balance unexpended | $568,130.04 |
| Amount appropriated by sundry civil act approved June 30, 1906 | 290,000.00 |
| | 858,130.04 |
| June 30, 1906, amount expended during fiscal year, for works of improvement | 258,197.84 |
| July 1, 1906, balance expended | 599,932.20 |
| July 1, 1906, outstanding liabilities | 44,245.53 |
| July 1, 1906, balance available | 555,686.67 |
| July 1, 1906, amount covered by uncompleted contracts | 579,484.77 |
| Amount (estimated) required for completion of existing project | 192,915.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1908, for works of improvement, in addition to the balance unexpended July 1, 1906. Submitted in compliance with requirements of sundry civil act of June 4, 1897. | 192,915.00 |

(See Appendix T T Z.)

3. Wilmington Harbor, California.—Wilmington is situated at the head of a small estuary which has its outlet in the bay of San Pedro, and is 393 nautical miles to the southward of San Francisco.

Previous to the commencement of the improvement, in 1871, there was a depth of less than 2 feet of water at low tide at the entrance.

716 Report of the Chief of Engineers, U. S. Army.

The original project, approved July 1, 1871, contemplated gaining a depth of 10 feet at mean low tide. This depth was obtained in 1881, at a cost of $555,000, when a further project to increase depth of channel to 15 feet at mean low tide by dredging a reef between the jetties, raising existing works, and extending the jetties to 18 feet of water in San Pedro Bay, was submitted. This project was completed in 1893, at a cost of $399,497.68.

The river and harbor act of June 3, 1896, appropriated $50,000 for improving the harbor in accordance with a project submitted in 1894 for a channel depth of 18 feet at mean low tide, at an estimated cost of $392,725. Owing to certain provisos, however, this money was not available without further action by Congress.

The present project was adopted by the river and harbor act of June 13, 1902, and contemplates providing a channel 20 feet deep and 400 feet wide from the outer harbor to the foot of the wharves; and 24 feet deep between harbor lines from the foot of the wharves to and including a turning basin 1,600 feet in diameter just below Mormon Island. It also provides for repairs to the east jetty and for the construction of a dike to divert the waters of the Los Angeles River from Wilmington Lagoon. The same

act made available the $50,000 appropriated by the act of June 3, 1896.

Changed conditions have rendered the building of the dike inadvisable.

The estimated cost of the work called for by the present project, including the procurement of a dredge, is $550,000.

The amount expended under the existing project to June 30, 1906, is $359,800.

Repairs have been made to the east jetty at a cost of $3,700.

A 20-inch suction dredge with the necessary discharge pipe line, floating plant, etc., has been built at a total cost of $118,721.78. The work of dredging the harbor began April 1, 1905, since which time 946,724 cubic yards of material has been dredged and deposited behind bulkhead lines on Terminal Island, or to the east of the east jetty, at a cost of $77,760.56, or about $0.08 per cubic yard. At the entrance to the harbor 303,470 cubic yards has been dredged under contract at a cost of $144,515 (contract payments only), and between the entrance and the upper end of the wharves 249,340 cubic yards has been dredged under contract at a cost of $39,894.40.

The entrance channel has been dredged to a width of 400 feet and a depth of 21 feet, except over an area 1,000 feet long and 220 feet wide, where the depth now averages about 18 feet. A channel 150 feet wide and 20 feet deep has been dredged from the entrance to the lower end of the wharves, and dredging to a depth of 24 feet has been done between the wharves as far north as the Crescent wharf, a distance of about 3,800 feet. Certain dredging has also been done north of this point to depths varying from 14 to 18 feet to make certain wharf frontages available.

The minimum draft that could be carried over the bar on June 30, 1906, was 21 feet at mean lower low water. The average rise of the tide above this plane of reference is 5.1 feet.

Of the available balance and any future appropriations that may be made about $27,000 will be expended in dredging the entrance to the harbor under contract, and the remainder in dredging with Government dredge and for contingencies.

River and Harbor Improvements. 717

For the calendar year 1905 the commerce of this port amounted to 1,087,557 tons, an increase of 29 per cent over the preceding year. It consists principally of lumber, crude oil, and general merchandise received, and of general merchandise and crude oil shipped. Its value is estimated at $42,700,000.

It is difficult to estimate accurately the effect of this improvement on freight rates. The principal traffic of the harbor is in lumber received from northern California, Oregon, and Washington, and shipped inland by rail, and amounts for the calendar year 1905 to nearly 1,000,000 tons. The water rate on lumber from Puget Sound points to Los Angeles is about $4.55 per ton; the railroad rate, $12 per ton. Without the improvement of Wilmington Harbor, lumber would have to be unloaded at exposed piers or brought to San Pedro in vessels of light draft or lightered ashore. The saving in freight, lighterage carges, and insurance is large, but can not be definitely stated.

For reference to reports on examinations and surveys, see Annual Report of the Chief of Engineers for the year 1904, page 635.

| | |
|---|---|
| July 1, 1907, balance unexpended | $148,767.49 |
| Amount appropriated by sundry civil act approved June 30, 1906 | 100,000.00 |
| | 248,767.49 |
| June 30, 1906, amount expended during fiscal year, for works of improvement | 108,056.67 |
| July 1, 1906, balance unexpended | 140,710.82 |
| July 1, 1906, outstanding liabilities | 26,173.97 |
| July 1, 1906, balance available | 114,536.85 |
| July 1, 1906, amount covered by uncompleted contracts | 35,296.63 |
| Amount (estimated) required for completion of existing project | 50,000.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1908, for works of improvement, in addition to the balance unexpended July 1, 1906. Submitted in compliance with requirements of sundry civil act of June 4, 1897. | 50,000.00 |

(See Appendix T T 3.)

4. San Luis Obispo Harbor, California.—San Luis Obispo Harbor is 9 miles to the southward and westward of the town of San Luis Obispo and 216 nautical miles from San Francisco.

It is a bight of the coast about 18 miles long between Point San Luis on the north and Point Sal on the south. The upper end, where Port Harford is situated, has a wharf and is the part used for commercial purposes.

Whaler reef, extending nearly half a mile to the southward and eastward of Point San Luis, forms more or less of a natural breakwater, but during the winter season the landing was exposed to the heavy swell caused by southerly gales.

The original project was adopted by the river and harbor act of August 11, 1888, and provided for the construction on Whaler reef of a breakwater of rubblestone rising to mean lower low water and extending from Point San Luis to Whaler Island and thence to a point where the outer reef rises above high water. Exclusive of Whaler Island, which is 245 feet long, the breakwater was to have a length of about 1,736 feet, and its estimated cost was $284,898.

718. Report of the Chief of Engineers, U. S. Army.

This project was modified January 17, 1893, to provide for raising the structure to the height of 6 feet above mean high water, with a top width of 20 feet and such side slopes as might be formed under the action of the sea. The estimated cost was increased to $568,660. This is the existing project.

For the expenditure of the $25,000 appropriated by the river and harbor act of March 3, 1905, a contract was entered into with the City Street Improvement Company of San Francisco, Cal., on May 24, 1905, for the delivery in the breakwater of 8,868 tons of stone, at $2.65 per ton. This work was completed in November, 1905.

The amount expended on this work up to June 30, 1906, is $304,759.36.

The breakwater has been built to full section from Point San Luis to Whaler Island and for 765 feet beyond

Whaler Island, and has been partly built up for 595 feet farther, or total distance of 1,941 feet, including the island. The partially protected area has an available depth of 21 to 27 feet at mean lower low water, and there is 22 feet depth at the Port Harford wharf. The mean rise of tide is 4.6 feet. The result has been to give increased security to vessels in the anchorage and at the landing.

Further work under the project will afford increased shelter, and further appropriations should be applied to the extension of the breakwater to its full projected length and height.

The commerce consists principally of lumber and general merchandise received and grain and crude oil shipped. Its volume for 1905 is 445,153 tons, an increase of 445 per cent over that of the previous year. This great increase is due to the large shipment of crude oil. The value of this commerce is estimated at $4,196,000.

It is impracticable to give definite figures relative to the influence of the project on freight rates. The following, however, may throw some light on the matter. The Union Oil Company pumps crude oil thru a 6-inch pipe from its wells in the northern part of Santa Barbara County, a distance of 40 to 45 miles, to the landing at Port Harford, and thence ships it in tank vessels to the Hawaiian Islands and coast points. The Standard Oil Company also ships oil from this port. The cost of delivery of oil in San Francisco is about 6 cents per barrel, and the oil is sold there for from 50 to 60 cents per barrel. The railway rate to San Francisco is about 60 cents per barrel.

Reference to reports on examinations and surveys will be found in Annual Report of the Chief of Engineers for the year 1904, page 636.

| | |
|---|---|
| July 1, 1905, balance unexpended | $25,497.60 |
| June 30, 1906, amount expended during fiscal year, for works of improvement | 25,256.01 |
| July 1, 1906, balance unexpended | 241.59 |
| Amount (estimated) required for completion of existing project | 263,660.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1908, for works of improvement, in addition to the balance unexpended July 1, 1906. Submitted in compliance with requirements of sundry civil act of June 4, 1897. | 65,000.00 |

(See Appendix T T 4.)

River and Harbor Improvements. 719

Examination and Survey Made in Compliance With River and Harbor Act Approved March 3, 1905.

Reports dated July 31, 1905, and January 22, 1906, on preliminary examination and survey, respectively, required by the river and harbor act of March 3, 1905, of Monterey Harbor, California, were submitted by the district officer thru the division engineer. They were reviewed by the Board of Engineers for Rivers and Harbors pursuant to law, and were transmitted to Congress and printed in House Document No. 557, Fifty-ninth Congress, first session. The improvement of the locality by the United States is not deemed advisable at the present time.

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# APPENDIX T T.

## IMPROVEMENT OF RIVERS AND HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO.

Report of Capt. Amos A. Fries, Corps of Engineers, officer in Charge for the Fiscal Year Ending June 30, 1906, With Other Documents Relating to the Works.

Improvements.

1. San Diego Harbor, California.
2. Deep-water Harbor at San Pedro Bay, California.
3. Wilmington Harbor, California.
4. San Luis Obispo Harbor, California.

United States Engineer Office,
Los Angeles, Cal., July 16, 1906.

General: I have the honor to forward herewith annual report on works of river and harbor improvement in my charge for the fiscal year ending June 30, 1906.

Very respectfully, your obedient servant,

Amos A. Fries,
Captain, Corps of Engineers.—

Brig. Gen. A. Mackenzie,
Chief of Engineers, U. S. A.

TTI.

## IMPROVEMENT OF SAN DIEGO HARBOR, CALIFORNIA.

No work was done during the year, the project adopted by the river and harbor act approved September 19, 1890, having been completed.

The river and harbor act of March 3, 1905, appropriated $10,000 for the maintenance of the entrance channels, and as the channel thru the outer bar has shoaled to 24 feet depth, authority was obtained for expending the appropriation in dredging this channel. Proposals for doing this work were invited by advertisements in February and March, 1906. Only one bid of 99 cents per cubic yard was received in response to the two advertisements, but was rejected as it was considered excessive.

Since then efforts have been made both independently and in conjunction with the San Diego Chamber of Commerce to get the work done at a rate of 50 cents per yard. So far these efforts have not been



successful, tho an offer has been made to do the work at 75 cents per yard. It is considered that unless about 20,000 yards of dredging can be done, the results will not warrant the cost.

There is such an enormous amount of dredging being done at other points along the Pacific coast, and the money at present available for dredging at San Diego is so small ($9,797), that contractors do not care to go to the expense and risk of sending a plant to San Diego for so small a contract. For these reasons it would appear

better to have a large appropriation made every two years than annual appropriations of half that amount.

It is therefore recommended that $30,000 be appropriated for dredging during the summer of 1907.

Appropriations.

| | | | |
|---|---|---|---|
| March 3, 1875 | $80,000.00 | March 3, 1899 | $65,000.00 |
| March 3, 1879 | 1,000.00 | June 13, 1902 | 75,000.00 |
| August 11, 1888 | 1,000.00 | March 3, 1903 | 192,850.00 |
| September 19, 1890 | 60,500.00 | March 3, 1905 | 10,000.00 |
| July 13, 1892 | 50,000.00 | Repayment | 3.26 |
| August 18, 1894 | 50,000.00 | Total | 635,353.26 |
| June 3, 1896 | 50,000.00 | | |

Commercial Statistics for the Year Ending December 31, 1905.

[Furnished by the collector of customs at San Diego, Cal.]

| | Incoming. | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 291 | 288 |
| Sailing | 89 | 86 |
| Total | 380 | 374 |
| Tonnage | 318,856 | 310,185 |
| Draft, greatest, feet | 27′ 7″ | 25′ 2″ |
| Merchandise, general, tons | 28,657 | 9,162 |
| Coal, do | 30,651 | 171 |
| Lumber, feet | 36,634,000 | 1,710,000 |

| | | | |
|---|---|---|---|
| Cement | tons | 12,500 | 140 |
| Grain | do | 184 | |
| Ores | do | 474 | 200 |
| Fertilizers | do | 606 | |
| Crude oil | barrels | | 30 |

Total amount of freight entered and cleared in 1905, 159,433 tons, an increase of 31 per cent over the preceding year.

No lines of transportation were established or abandoned during the year.

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## T T 2.

## DEEP-WATER HARBOR AT SAN PEDRO BAY, CALIFORNIA.

The construction of the breakwater was continued during the year, under continuing contract dated June 7, 1900, with the California Construction Company of San Francisco, Cal.

At the beginning of the fiscal year 1,887,547 tons of stone had been deposited in the substructure, which had been raised to mean lower low water, and was about completed for the length of 8,212 feet from its westerly end, and 72,165 tons had been placed in the superstruc-



ture. The amount of superstructure work done was the equivalent of 2,659 feet of completed wall.

During the fiscal year ending June 30, 1906, 14,104 tons of sandstone and 65,553 tons of granite, a total of 79,657 tons, was placed in the substructure, and 49,100 tons of granite in the superstructure. This makes a total of

1,967,204 tons in the substructure, 121,265 tons in the superstructure, and 2,088,469 tons under the contract. The substructure is built to mean lower low water and is about completed for a length of 8,452 feet. Work has been done on the superstructure over a length of 5,550 feet, commencing 628 feet from the westerly end of the breakwater. The amount of stone placed in the superstructure is equivalent to about 4,500 feet of completed work.

During the fiscal year 1905, the double-track trestle reached a total length of 8,548 feet, but during a severe storm of March 12 and 13, 1905, 208 feet of this trestle was knocked down by the sea. It was rebuilt and extended 128 feet, and was again injured by a storm in November, 1905, when 7 bents at the outer end were destroyed. The trestle has not been extended since that time, its present length being 8,564 feet. During a storm on March 11 and 12, 1906, the seas swept about 1,300 feet of the contractor's railroad track off of the completed portions of the superstructure. This track was, except in very few places, resting on stubs of piling or short blocks set upon the completed work, and hence was easily moved. No damage was done to piling or to the track where the piles were firmly in place.

During this same storm several stones weighing 8 tons or over in the bottom course of rectangular blocks on the ocean side were displaced, and two of them weighing over 10 tons were turned bottom up. However, this occurred only where such stones were not backed by other stones or weighted by other courses. No damage whatever was done to the substructure either with or without superstructure in place.

The contract is about 75 per cent completed for a breakwater 9,000 feet in length.

The contractor is now considerably behind the tonnage of rock called for in the specifications and will probably continue to fall behind for some time. Due to the fact that the teredo destroys piling in from one to two years, the contractor has not extended his trestle to the full length of 9,000 feet, preferring to delay making the extension until such time as the superstructure can be completed within about a year after the piling is in place.

At present the superstructure is being completed at the rate of nearly 200 feet per month. That rate will complete the entire break water about April 30, 1908. The contractor is, however, opening two new quarries from which he hopes to get superstructure stone, and thereby considerably increase his present output of dimension stone. The rate at which this dimension stone can be delivered determines the rate of progress on the breakwater, since substructure stone and that used as backing for the walls of the superstructure can be delivered at almost any desired rate. Only one of the above-mentioned new quarries appears promising, and it is therefore barely probable that the contract may be completed by the end of the year 1907.

Eighteen experimental 16,000-pound concrete blocks have been made to test the action of sea water on concrete made from different cements in general use in this market and mixt in different proportions with sand and broken stone. These blocks were placed along



the ocean toe of the breakwater in August, 1905, between stations 30 and 34. As yet none of these stones show signs

of failing. They weighed dry 146 pounds per cubic foot. A few having granite hand rock incorporated in them weighed 151 pounds per cubic foot.

The work on the breakwater has already advanced far enough to shelter in stormy weather a large anchorage area and the entrance to the inner harbor.

From a careful survey of the harbor made in September, 1905, it appears that only slight changes in the harbor have taken place since beginning the construction of the breakwater, except where dredging has been done at the entrance to the inner harbor.

Due to the demands of a rapidly growing commerce and to the protection already afforded by the breakwater, permission has been asked and granted the Los Angeles Inter-Urban Railway Company and Mr. Randolph H. Miner to build certain bulkheads and fill in the inclosed areas preparatory to the construction of wharves, piers, warehouses, etc., in the outer harbor west of, and to Mr. John T. Gaffey and others east of the entrance to the inner harbor.

Appropriations.

| | | | |
|---|---|---|---|
| June 3, 1896 | $50,000.00 | June 30, 1906 | $290,000.00 |
| July 1, 1898 | 400,000.00 | | |
| March 3, 1899 | 200,000.00 | Total | 2,707,085.00 |
| March 3, 1901 | 146,000.00 | Received from sale of property | .05 |
| June 28, 1902 | 311,085.00 | | |
| March 3, 1903 | 500,000.00 | | |
| April 28, 1904 | 350,000.00 | | |
| March 3, 1905 | 460,000.00 | Total | 2,707,085.05 |

Contract in Force.

Contract for construction of breakwater.

Name of contractor: California Construction Company.

Contract entered into June 7, 1900; approved June 27, 1900.

Work to begin August 4, 1900; contract to be completed December, 1906, provided adequate appropriations are made by Congress.

Rates:

For substructure stone, $0.844 per ton of 2,240 pounds.

For superstructure stone, $3.10 per ton of 2,240 pounds.

For concrete, $6 per cubic yard.

Quantities (estimated):

Stone in substructure, 2,135,958 tons; stone in superstructure, 235,275 tons; total, 2,391,233 tons.

Concrete, 2,370 cubic yards.

Total consideration of contract (approximate): $2,563,046.05.

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Commercial Statistics for Year Ending December 31, 1905.

For commercial statistics see report of Wilmington Harbor, California.

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*Of the appropriation of $50,000 made by river and harbor act of June 3, 1896, for deep-water harbor at Santa Monica Bay, or San Pedro Bay, California, $35,555.76 was expended by the Board provided for by said act. For the full report of the Board, with its accompanying documents, see Senate Document No. 18, Fifty-fifth Congress, first session.

## T T 3.

## IMPROVEMENT OF WILMINGTON HARBOR, CALIFORNIA.

Dredging under contract.—Under a contract entered into September 8, 1905, with A. A. Polhamus, of San Diego, Cal., there was dredged at the entrance to the harbor 180,500 cubic yards of material, at a cost of $83,030. The result of this dredging was the formation of a channel 2,000 feet long, 22 feet deep, and 400 feet wide, except over an area at the outer end 1,000 feet long and 220 feet wide. The material dredged consisted of clay, shale, sand, and fragmental rock. There yet remains 52,500 yards to be dredged to complete the channel thru the bar to its full projected width of 400 feet, and to a depth 22 feet at mean lower low water.

Dredging with Government dredge.—The dredge San Pedro was employed during the year in dredging between the wharves to a depth of 24 feet, 702,810 cubic yards being dredged and deposited to the east of the east jetty.

The depths of cuts varied from 6 to 26 feet, the material removed consisting of tough yellow clay and sand, thin strata of a sandstone formation, cemented shells, small loose rock, and some quicksand. Much sloughing occurred under one of the wharves along the easterly side of the harbor where the underlying strata were quicksand, and frequently after the cuts had been made to the required grade it was found necessary to go over them a second time to remove fills of quicksand from 2 to 6 feet in depth. While the amount of material dredged averaged 58,500 yards per month during the past year it

should be considerably greater during the coming year for the reason that the toughness of the material in the upper 800 feet of the cut was such that for nearly four months the monthly average was reduced to about 40,000 yards, but at the end of the year the dredge was encountering softer material over the whole width of cut except along the westerly line.

The following statement shows the cost of operating the dredge during the year:

| | |
|---|---|
| Routine office work | $1,320.00 |
| Care of plant, labor | 720.00 |
| Surveys, labor | 263.10 |
| Towage and dispatch work, labor and supplies | 932.27 |
| Alterations and repairs to dredge and attendant plant, labor and material | 7,091.82 |
| Operating dredge, including superintendence, labor charges, fuel, fresh water, lubricants, and all other supplies | 39,099.47 |
| Deterioration of plant and property estimated | 10,545.48 |
| Total cost of dredging | 59,972.14 |

The cost per cubic yard was $0.085.

The following statement shows the distribution of time for the dredging during the year:

| | Hours. | | Hours. |
|---|---|---|---|
| Moving and placing plant | 429.50 | Advancing | 671.58 |
| Actual pumping | 4,587.37 | Not working (52 Sundays, 7 holidays) | 1,416.00 |
| Repairs and alterations | 1,361.20 | | |
| Time lost passing vessels | 221.21 | Total | 8,760.00 |
| Cleaning suction | 71.54 | | |

The amount expended under the existing project to June 30, 1906, is $359,800. So far as material removed is concerned the dredging project is about 44 per cent completed, tho the cost of the completed portion is about 65 per cent of the estimated total cost.

Dredging the turning basin comprises the greater part of the work yet to be done, as the wharfage room now available with 24 feet of water at low tide is about 60 per cent of the whole that will be available upon completion of the project.

The available balance, together with any additional appropriations, should be expended in completing the dredging under contract on the bar at entrance to the harbor, in dredging with the Government dredge, and for contingencies.

Appropriations.

| | | | |
|---|---|---|---|
| March 3, 1871 | $200,000.00 | September 19, 1890 | $34,000.00 |
| June 10, 1872 | 75,000.00 | July 13, 1892 | 51,000.00 |
| March 3, 1873 | 150,000.00 | June 3, 1896 | 50,000.00 |
| March 3, 1875 | 30,000.00 | June 13, 1902 | 250,000.00 |
| June 18, 1878 | 20,000.00 | March 3, 1905 | 100,000.00 |
| March 3, 1879 | 12,000.00 | June 30, 1906 | 100,000.00 |
| June 14, 1880 | 35,000.00 | | |
| March 3, 1881 | 33,000.00 | | 1,455,000.00 |
| August 2, 1882 | 100,000.00 | | |
| July 5, 1884 | 50,000.00 | Received from sale of property | 8.50 |
| August 5, 1886 | 75,000.00 | | |
| August 11, 1888 | 90,000.00 | Aggregate | 1,455,008.50 |

All Contracts in Force.

Contract for dredging at entrance to harbor.

Name of contractor: A. A. Polhamus.

Contract entered into September 8, 1905; approved September 19, 1905.

Work to begin November 26, 1905.

Contract to be completed November 26, 1906.

Contract for dredging channel 400 feet wide and 22 feet deep thru outer bar, at 46 cents per cubic yard.

Contract for furnishing crude oil.

Name of contractor: William S. Miller.

Contract entered into December 30, 1904; approved January 19, 1905.

Deliveries to begin January 31, 1905.

Contract completed January 31, 1906.

Thirteen thousand and sixty-eight barrels of oil for fuel for dredge delivered, at 46 cents per barrel.

Emergency contract for furnishing crude oil.

Name of contractor: Horatio T. Harper.

Contract entered into January 24, 1906.

Deliveries to begin February 1, 1906.

Contract completed June 30, 1906.

Contract for furnishing 8,500 barrels of crude oil, at 48 cents per barrel.

Emergency contract for furnishing gasoline.

Name of contractor: William S. Miller.

Contract entered into December 1, 1904.

Deliveries to begin December 1, 1904.

Contract completed December 1, 1905.

One thousand one hundred and eight gallons furnished for $138.50.

[For copy of map attached hereto see page 28, Book of Exhibits.]

Appendix T T—Report of Captain Fries. 1961

Emergency contract for furnishing lubricating oils, etc.

Name of contractor: William S. Miller.

Contract entered into December 14, 1904.

Deliveries to begin December 20, 1904.

Contract completed December 20, 1905.

Contract for furnishing lubricating oils, etc., for dredge for $1,410.70.

---

Commercial Statistics for the Year Ending December 31, 1905.

[Furnished by the collector of customs at Los Angeles, Cal.]

| | Foreign commerce. | | Domestic commerce. | |
|---|---|---|---|---|
| | Incoming. | Outgoing. | Incoming. | Outgoing. |
| Vessels: | | | | |
| Steam | 2 | | 1,023 | 1,021 |
| Sailing | 4 | 6 | 415 | 417 |
| Total | 6 | 6 | 1,438 | 1,438 |
| Tonnage | 9,593 | 9,734 | 639,365 | 639,584. |
| Draft, greatest....feet | 22.6 | 18 | 21 | 19.5 |
| Cement .....tons | 12,882 | | | |
| Merchandise, general .....do.. | | | 16,390 | 13,346 |
| Coal .....do.. | | | 2,696 | |
| Lumber .....feet | | | 495,511,000 | |
| Crude oil.....barrels | | | | 29,688 |
| Asphalt .....tons | | | | 2,242 |
| Salt .....do.. | | | | 1,250 |
| Pig iron .....do.. | | | 130 | |
| Grain .....do.. | | | 36,806 | |
| Live stock.....head | | | 7,970 | |

Foreign commerce, 12,882 tons; domestic commerce, 1,074,675 tons; total, 1,087,557 tons; an increase of 29 per cent over the preceding year.

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## T T 4.

## IMPROVEMENT OF SAN LUIS OBISPO HARBOR, CALIFORNIA.

On May 24, 1905, a contract was entered into with the City Street Improvement Company, of San Francisco, Cal., for the expenditure of the $25,000 appropriated by river and harbor act of March 3, 1905. Work under this contract began July 30, 1905, and was completed November 15, 1905. There was delivered and placed in the breakwater 8,835 tons of stone, at $2.65 per ton. In order to secure the greatest advantage from the small appropriation, such repairs were made to the breakwater as were necessary to bring it up to the height of high water, and the remainder of the stone was used in extending the breakwater, building it to high water only. The breakwater was built for a distance of 1,270 feet beyond Whaler Island. Some stone, however, has been placed for a distance of 90 feet farther.

The approved project for this breakwater contemplates a structure rising to 6 feet above high water. Further appropriations will be expended in extending the breakwater to its full height and length.

Appropriations.

| | | | |
|---|---|---|---|
| August 11, 1888 | $25,000.00 | March 3, 1905.. | $25,000.00 |
| September 19, 1890 ..... | 40,000.00 | Total..... | 305,000.00 |
| July 13, 1892.... | 30,000.00 | Received from sale of property ..... | .95 |
| August 18, 1894 | 40,000.00 | | |
| June 3, 1896..... | 40,000.00 | | |
| March 3, 1899.. | 55,000.00 | | |
| June 13, 1902.... | 50,000.00 | Total..... | 305,000.95 |

1962. Report of the Chief of Engineers, U. S. Army.

Contracts in Force.

Contract for continuing construction of breakwater.

Name of contractor: City Street Improvement Company.

Contract entered into May 24, 1905. Approved June 19, 1905.

Work began July 30, 1905. Contract completed November 15, 1905.

Under this contract 8,835 tons (of 2,000 pounds each) of rubble stone, at $2.65 per ton, was delivered.

---

Commercial Statistics for the Year Ending December 31, 1905.

[Furnished by the Pacific Coast Railway Company.]

| | Incoming. | Outgoing. |
|---|---|---|
| Vessels: | | |
| Steam | 238 | 238 |
| Sailing | 48 | 48 |
| Total | 286 | 286 |
| Draft, greatest, feet | 22 | ..... |
| Merchandise, general, tons | 15,701 | 1,210 |
| Lumber, feet | 9,395,625 | ..... |
| Grain, tons | ..... | 34,851 |
| Bituminous rock, do | ..... | 2,400 |
| Dairy products, do | ..... | 200 |
| Crude oil, barrels | ..... | 2,232,000 |

Total amount of freight entered and cleared in 1905, 445,153 tons, an increase of 445 per cent over the preceding year.

No lines of transportation were established or abandoned during the year.

[Stamped]: Drafting Room File

UNITED STATES [Emblem] OF AMERICA
WAR DEPARTMENT

Washington, November 15, 1930.

I hereby certify that the attached pamphlet is a true copy of an extract from the Annual Report of the Chief of Engineers, 1906, on file in the Office of the Chief of Engineers, United States Army.

Lytle Brown
Lytle Brown,
Major General,
Chief of Engineers.
BW

I hereby certify that Lytle Brown, who signed the foregoing certificate, is the Chief of Engineers, United States Army, and that to his certification as such full faith and credit are and ought to be given.

In testimony whereof I, Patrick J. Hurley, Secretary of War, have hereunto caused the Seal of the War Department to be affixed, and my name to be subscribed by the Assistant and Chief Clerk of the said Department, at the City of Washington, this -18th- day of November, 1930.

[Seal]

Patrick J. Hurley
Secretary of War.

By John C. Scofield
Assistant and Chief Clerk.

No. Q-12-J. City of LA vs. Borax Plf Exhibit No. 24 Filed 11/14 1933 R. S. Zimmerman, Clerk By Cross Deputy Clerk

# APPENDIX T T
# REPORT UPON THE IMPROVEMENT OF HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO

AMOS A. FRIES
Captain, Corps of Engineers, U. S. A.
in Charge

[Emblem]

WASHINGTON
GOVERNMENT PRINTING OFFICE
1907

[Stamped]: Drafting Room File

[EXTRACT FROM THE ANNUAL REPORT OF THE CHIEF OF ENGINEERS TO THE SECRETARY OF WAR.]

War Department,
Office of the Chief of Engineers,
Washington, August 1, 1907.

* * * * * * *

## IMPROVEMENT OF HARBORS IN CALIFORNIA SOUTH OF SAN FRANCISCO.

This district was in the charge of Capt. Amos A. Fries, Corps of Engineers. Division engineer, Col. W. H. Heuer, Corps of Engineers, until March 2, 1907, and Lieut. Col. John Biddle, Corps of Engineers, since June 12, 1907.

1. San Diego Harbor, California.—San Diego Harbor is just north of the national boundary of Mexico and 482 nautical miles south of San Francisco.

The river and harbor act approved March 3, 1875, appropriated $80,000 for the construction of a dike across the mouth of San Diego River, causing it to empty into False Bay, and thus preventing San Diego Harbor from being injured by the deposit of material brought down during flood stages. This work was completed in 1876 at a cost of $79,798.72, which, with the cost of repairs made up to the time of adoption of the present project, brought the total expenditures to $81,918.45. Further repairs to the dike have been made by the city of San Diego.

The later project for the improvement of the harbor, adopted by the river and harbor act approved September 19, 1890, provided for the construction of a jetty on Zuninga shoal, at the entrance to the harbor; the maintenance of a channel 24 feet deep at mean low tide and 500 feet wide through the "middle ground," and for repairs to restraining dike. The jetty was to rise to the height of extreme high water and to be about 7,500 feet long, with a view to producing a depth of 26 feet at mean lower low water on the outer bar.

733



At the time of the adoption of this project the governing depth on the bar was 21 feet. Just inside the entrance was a middle ground carrying but 17 feet of water. The main channel, lying to the west of the middle ground, was of ample depth, but was difficult of navigation on account of two sharp turns.

The original estimated cost of this improvement was $394,400. This estimate was increased in June, 1900, to $542,850.

The appropriation of $192,850 in the sundry civil act of March 3, 1903, brought the total of appropriations up to the amount of the revised estimate.

The jetty was extended to its full contemplated length of 7,500 feet, a channel 26 feet deep and 271 feet wide (28 feet deep over a width of 171 feet) was dredged across the outer bar, and a channel 26 feet deep and 400 feet wide was dredged across the middle ground. Later the channels through the outer bar and the middle ground both shoaled to 24 feet depth. The amount expended on this habor up to the completion of this project was $625,214.94.

The river and harbor act of March 3, 1905, appropriated $10,000 for the maintenance of these channels.

On September 28, 1906, an emergency contract was entered into with the North American Dredging Company for dredging a channel through the outer bar to a depth of 28 feet and to such width as the amount of money available would permit. Fifteen thousand six hundred and twenty-five cubic yards of material was dredged and dumped at sea at a cost of 60 cents per yard. This contract was completed December 18, 1906. A channel 100 feet wide and 27 feet deep at mean lower low water was dredged. This channel has since shoaled to 25 feet depth, which is the maximum draft that could be carried into the harbor at mean lower low water on June 30, 1907. The average height of all high waters above the plane of reference is 4.8 feet.

The river and harbor act of March 2, 1907, appropriated $20,000 for the maintenance of these channels, and a contract will be entered into at an early date with the

North American Dredging Company for dredging about 37,254 cubic yards of material on the outer bar at 51 cents per yard.

The amount expended on this project (maintenance) to June 30, 1907, is $10,079.19.

The commerce of this harbor was 216,761 tons for the calendar year 1906, an increase of 36 per cent over that of the previous year. It consists principally of lumber, general merchandise, and ore shipped. The value of this commerce is estimated to be $10,523.498.

The coastwise trade is carried in vessels drawing from 12 to 20 feet of water, and is benefited but little by the improvement of the harbor. The American-Hawaiian steamers, of 8,000 to 10,000 tonnage each, enter this port once a month. These vessels draw about 26 feet of water and carry 1,000 to 2,000 tons of freight per month for San Diego. Freight for San Diego carried by the Panama steamers is delivered by coastwise steamers from San Francisco. The American-Hawaiian steamers and the Panama steamers have a rate from the Atlantic ports to San Diego averaging about 30 per cent cheaper than railroad rates. Foreign cements are received in this port in sailing vessels drawing 22 and 23 feet of water.

For reference to reports on examinations and surveys, see Annual Report of the Chief of Engineers for the year 1904, page 632.

| | |
|---|---|
| July 1, 1906, balance unexpended | $ 9,797.36 |
| Amount appropriated by river and harbor act, approved March 2, 1907 | 20,000.00 |
| | 29,797.36 |
| June 30, 1907, amount expended during fiscal year, for maintenance of improvement | 9,738.23 |
| July 1, 1907, balance unexpended | 20,059.13 |
| July 1, 1907, outstanding liabilities | 26.93 |
| July 1, 1907, balance available | 20,032.20 |

(See Appendix T T 1.)

2. Deep-water harbor at San Pedro Bay, California.—The river and harbor act of June 3, 1896, provided for the appointment of a Board to determine upon the location of a deep-water harbor for commerce and of refuge in Santa Monica Bay, California, or at San Pedro, in the same State, the decision of a majority of the Board as to location to be final. The Board was to make plans, specifications, and estimates for said improvement. After the Board should have rendered its decision and submitted its report the Secretary of War was empowered to make contracts for the completion of the selected harbor in accordance with the project of the Board, at a cost not exceeding in the aggregate $2,900,000.

In accordance with the provisions of this act a Board was appointed which submitted its report March 1, 1897, deciding in favor of San Pedro Bay. The report of the

Board is printed in Senate Document No. 18, Fifty-fifth Congress, first session.

The plan of the Board (the present project of improvement) was to construct, to the eastward of Point Fermin, a breakwater about 8,500 feet long, or as much longer as could be constructed within the authorized limit of cost, $2,900,000, and it has been decided that a breakwater 9,000 feet long should be built. In plan the breakwater is to consist of two straight arms connected by a curve 1,800 feet in length, of 1,910 feet radius. The westerly arm is to be 3,900 feet long, pointing S. 72° E. (magnetic); the easterly arm, as extended, 4,200 feet long, pointing N. 54° E. (magnetic). A gap of about 1,850 feet is to be left between the east shore of Point Fermin and the westerly end of the breakwater.

Originally San Pedro Bay was an open roadstead exposed to southeasterly, southerly, and southwesterly winds. The effect of the breakwater will be to afford a place of refuge, easy of access and secure from storms, for vessels of the largest size. It will also shelter the entrance to the inner harbor of San Pedro.

On August 12, 1898, a continuing contract was entered into with Heldmaier & Neu, of Chicago, Ill., for the construction of the breakwater for $1,303,198.54. This contract was anulled on March 19, 1900, on account of unsatisfactory progress. Under this contract 86,610 tons of stone was placed in the foundation course, at a cost, including inspection, of $51,537.43.

On June 7, 1900, a continuing contract for completing the breakwater was entered into with the California Construction Company, of San Francisco, Cal. The estimated cost of work under this contract, using the quantities on

which bids were canvassed and the prices bid for stone and concrete, and allowing 10 per cent for engineering expenses and contingencies, is $2,613,100.66, in addition to expenditures under the former contract. This estimate is for a

736 Report of the Chief of Engineers, U. S. Army.

breakwater 8,500 feet long. The extension of the breakwater to 9,000 feet in length is estimated to cost about $206,250 additional.

The amount expended under the project up to the close of the fiscal year ending June 30, 1907, is $2,294,211.18, including the expenditures of the Board referred to above.

Work was begun on the westerly end of the substructure. Up to June 30, 1907, 1,969,780 long tons of stone, at $0.844 per ton, had been deposited in the substructure under the present contract, and the substructure was about completed for a distance of 8,452 feet.

The superstructure was begun at a distance of 628 feet from the westerly end and is being built to the eastward. To June 30, 1907, 169,394 long tons of stone had been placed in the superstructure, at $3.10 per ton, and this, while partially completing it over a length of 7,238 feet, is equivalent to 6,606 feet of completed work. The project is about 84 per cent completed.

The protected area is used by vessels which have to lighter a part of their cargo or have to await a favorable tide before they can enter the inner harbor. The effect of continuing work under the existing project will be to enlarge the protected area and to increase the shelter afforded the entrance to the inner harbor.

The available balance and the $100,000 authorized but not yet appropriated will be expended in extending the breakwater under contract.

There are as yet no commercial wharves in the outer, or breakwater, harbor. The construction of bulkheads, etc., has been begun, and it is expected that facilities for commerce will be greatly developed during the year. For commercial statistics see report on Wilmington Harbor.

For reference to report on examinations and surveys see Annual Report of the Chief of Engineers for the year 1904, page 634.

| | |
|---|---|
| July 1, 1906, balance unexpended | $599,932.20 |
| Amount appropriated by sundry civil act approved March 4, 1907 | 92,915.00 |
| | 692,847.20 |
| June 30, 1907, amount expended during fiscal year, for works of improvement | 187,058.33 |
| July 1, 1907, balance unexpended | 505,788.87 |
| July 1, 1907, outstanding liabilities | 31,437.09 |
| July 1, 1907, balance available | 474,351.78 |
| *July 1, 1907, amount covered by uncompleted contracts* | 415,714.12 |
| Amount (estimated) required for completion of existing project | 100,000.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1909, for works of improvement, in addition to the balance unexpended July 1, 1907 | 100,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1907.

(See Appendix T-T 2.)

3. Wilmington Harbor, California.—Wilmington is situated at the head of a small estuary which has its outlet in the Bay of San Pedro, and is 393 nautical miles to the southward of San Francisco.

Previous to the commencement of the improvement, in 1871, there was a depth of less than 2 feet of water at low tide at the entrance.

The original project, approved July 1, 1871, contemplated gaining a depth of 10 feet at mean low tide. This depth was obtained in



1881, at a cost of $555,000, when a further project to increase depth of channel to 15 feet at mean low tide by dredging a reef between the jetties, raising existing works, and extending the jetties to 18 feet of water in San Pedro Bay, was submitted. This project was completed in 1893, at a cost of $399,497.68.

The river and harbor act of June 3, 1896, appropriated $50,000 for improving the harbor in accordance with a project submitted in 1894 for a channel depth of 18 feet at mean low tide, at an estimated cost of $392,725. Owing to certain provisos, however, this money was not available without further action by Congress.

The present project was adopted by the river and harbor act of June 13, 1902, and contemplates providing a channel 20 feet deep and 400 feet wide from the outer harbor to the foot of the wharves; and 24 feet deep between harbor lines from the foot of the wharves to and including a turning basin 1,600 feet in diameter just below Mormon Island. It also provides for repairs to the east jetty and for the construction of a dike to divert the waters of the

Los Angeles River from Wilmington Lagoon. The same act made available the $50,000 appropriated by the act of June 3, 1896.

Changed conditions have rendered the building of the dike inadvisable.

The original estimated cost of the work called for by the present project, including the procurement of a dredge, is $550,000. This estimate has been increased to $663,000.

The river and harbor act of March 2, 1907, and the sundry civil act of March 4, 1907, appropriated $113,000 and $50,000, respectively, for this work, completing the full amount of the estimated cost.

The amount expended under the existing project to June 30, 1907, is $477,631.69, and the project is about 52 per cent completed.

Repairs have been made to the east jetty at a cost of $3,700.

A 20-inch suction dredge, with the necessary discharge pipe line, floating plant, etc., has been built at a total cost of $118,721.78. The work of dredging the harbor began April 1, 1905, since which time 1,774,044 cubic yards of material has been dredged and deposited behind bulkhead lines on Terminal Island, or outside the jetties, at a cost of $144,425.69, or about $0.08 per cubic yard. At the entrance to the harbor 355,785 cubic yards has been dredged under contract at a cost of $168,579.90 (contract payments only), and between the entrance and the upper end of the wharves 249,340 cubic yards has been dredged under contract at a cost of $39,894.40.

The entrance channel has been dredged to a width of 400 feet and a depth of 21 feet. A channel 400 feet wide, with a least depth of 20 feet, has been dredged from the

entrance to the lower end of the wharves, and dredging to a depth of 25 feet has been done between the wharves as far north as Smiths Island, a distance of about 5,000 feet. This depth of 25 feet, with a width of 200 feet, has also been carried along the easterly side a further distance of 817 feet. Northward of there dredging to the depth of 20 feet has also been done in front of all wharves on both sides of the harbor.

The minimum draft that could be carried over the bar on June 30, 1907, was 20 feet at mean lower low water. The average rise of the tide above this plane of reference is 5.1 feet.

The available balance will be expended in dredging with Government dredge and for contingencies.

738 Report of the Chief of Engineers, U. S. Army.

For the calendar year 1906 the commerce of this port amounted to 1,007,476 tons, a decrease of 7 per cent from the preceding year. It consists principally of lumber, crude oil, and general merchandise received, and of general merchandise and crude oil shipped. Its value is estimated at $20,245,000.

It is difficult to estimate accurately the effect of this improvement on freight rates. The principal traffic of the harbor is in lumber received from northern California, Oregon, and Washington, and shipped inland by rail, and amounts for the calendar year 1906 to nearly 1,000,000 tons. The water rate on lumber from Puget Sound points to Los Angeles is about $5 per ton; the railroad rate, $12.50 per ton. Without the improvement of Wilmington Harbor, lumber would have to be unloaded at exposed piers or brought to San Pedro in vessels of light draft or lightered ashore. The saving in freight, lighterage

charges, and insurance is large, but can not be definitely stated.

For reference to reports on examinations and surveys, see Annual Report of the Chief of Engineers for the year 1904, page 635.

| | |
|---|---|
| July 1, 1906, balance unexpended | $140,710.82 |
| Amount appropriated by sundry civil act approved March 4, 1907 | 50,000.00 |
| Amount appropriated by river and harbor act approved March 2, 1907 | 113,000.00 |
| Receipts from sales, damages to dredge, etc. | 88.75 |
| | 303,799.57 |
| June 30, 1907, amount expended during fiscal year, for works of improvement | 117,831.69 |
| July 1, 1907, balance unexpended | 185,967.88 |
| July 1, 1907, outstanding liabilities | 6,061.22 |
| July 1, 1907, balance available | 179,906.66 |

(See Appendix T T 3.)

4. San Luis Obispo Harbor, California.—San Luis Obispo Harbor is 9 miles to the southward and westward of the town of San Luis Obispo and 216 nautical miles from San Francisco.

It is a bight of the coast about 18 miles long between Point San Luis on the north and Point Sal on the south. The upper end, where Port Harford is situated, has a wharf and is the part used for commercial purposes. Whaler reef, extending nearly half a mile to the southward and eastward of Point San Luis, forms more or

less of a natural breakwater, but during the winter season the landing was exposed to the heavy swell caused by southerly gales.

The original project was adopted by the river and harbor act of August 11, 1888, and provided for the construction on Whaler reef of a breakwater of rubblestone rising to mean lower low water and extending from Point San Luis to Whaler Island and thence to a point where the outer reef rises above high water. Exclusive of Whaler Island, which is 245 feet long, the breakwater was to have a length of about 1,736 feet, and its estimated cost was $284,898.

This project was modified January 17, 1893, to provide for raising the structure to the height of 6 feet above mean high water, with a top width of 20 feet and such side slopes as might be formed under the action of the sea. The estimated cost was increased to $568,660. This is the existing project.



The amount expended on this work up to June 30, 1907, is $305,001.78, and the project is 53 per cent completed.

The breakwater has been built to full section from Point San Luis to Whaler Island and for 765 feet beyond Whaler Island, and has been partly built up for 595 feet farther, or a total distance of 1,941 feet, including the island. The partially protected area has an available depth of 20 to 33 feet at mean lower low water and there is 30 feet depth at the Port Harford wharf, which was extended during the year. The mean rise of tide is 4.6 feet. The result has been to give increased security to vessels in the anchorage and at the landing.

The river and harbor act of March 2, 1907, appropriated $63,660 and authorized continuing contracts for the completion of the work at a cost not to exceed $200,000 yet to be appropriated.

Proposals for completing the breakwater have been received and a continuing contract will be entered into at an early date with the San Francisco Bridge Company for the delivery of 151,140 tons of stone at $1.57 per ton, which amount will complete the project.

Further work under the project will afford increased shelter, and the $200,000 yet to be appropriated should be applied to the extension of the breakwater to its full projected length and height.

The commerce consists principally of lumber and general merchandise received and grain and crude oil shipped. Its volume for 1906 is 580,564 tons, an increase of 30 per cent over that of the previous year. This great increase is due to the large shipment of crude oil. The value of this commerce is estimated at $4,730,000.

It is impracticable to give definite figures relative to the influence of the project on freight rates. The following, however, may throw some light on the matter. The Union Oil Company pumps crude oil through a 6-inch pipe from its wells in the northern part of Santa Barbara County, a distance of 40 to 45 miles, to the landing at Port Harford, and thence ships it in tank vessels to the Hawaiian Islands and coast points. The Standard Oil Company also ships oil from this port. The cost of delivery of oil in San Francisco is about 10 cents per barrel, and the oil is sold there for from $1 to $1.25 per barrel. The railway rate to San Francisco is about 60 cents per barrel.

Reference to reports on examinations and surveys will be found in Annual Report of the Chief of Engineers for the year 1904, page 636.

| | |
|---|---|
| July 1, 1906, balance unexpended | $ 241.59 |
| Amount appropriated by river and harbor act approved March 2, 1907 | 63,660.00 |
| | 63,901.59 |
| June 30, 1907, amount expended during fiscal year, for works of improvement | 242.42 |
| July 1, 1907, balance unexpended | 63,659.17 |
| July 1, 1907, outstanding liabilities | 30.40 |
| July 1, 1907, balance available | 63,628.77 |
| Amount (estimated) required for completion of existing project | 200,000.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1909, for works of improvement, in addition to the balance unexpended July 1, 1907. Submitted in compliance with requirements of sundry civil act of June 4, 1897. | 100,000.00 |

(See Appendix T T 4.)

* * * * * * *

# APPENDIX T T.

## IMPROVEMENT OF RIVERS AND HARBORS IN CALIFORNIA, SOUTH OF SAN FRANCISCO.

Report of Capt. Amos A. Fries, Corps of Engineers, Officer in Charge, for the Fiscal Year Ending June 30, 1907.

Improvements.

1. San Diego Harbor, California.
2. Deep-water harbor at San Pedro Bay, California.
3. Wilmington Harbor, California.
4. San Luis Obispo Harbor, California.

United States Engineer Office,

Los Angeles, Cal., July 5, 1907.

General: I have the honor to forward herewith annual report on works of river and harbor improvement in my charge for the fiscal year ending June 30, 1907.

Very respectfully, your obedient servant,

Amos A. Fries,
Captain, Corps of Engineers.

Brig. Gen. A. Mackenzie,
Chief of Engineers, U. S. A.

## T T 1.

## IMPROVEMENT OF SAN DIEGO HARBOR, CALIFORNIA.

The river and harbor act of March 3, 1905, appropriated $10,000 for maintenance of the entrance channels, and as the channel through the outer bar had shoaled to 24 feet depth, authority was obtained for dredging this channel. An emergency contract was entered into September 28, 1906, with the North American Dredging Company. Work began November 24, 1906, and was completed December 18, 1906; 15,625 cubic yards of material was dredged and dumped at sea at a cost of 60 cents per yard. A channel 100 feet wide and 27 feet





deep was dredged through the bar. This channel has since shoaled to 25 feet.

The river and harbor act of March 2, 1907, appropriated $20,000 for maintenance. Authority has been obtained to enter into a contract with the North American Dredging Company for dredging a channel through the outer bar to a depth of 28 feet at low water, at a cost of 51 cents per yard. It is estimated that the 37,250 yards to be excavated under this contract will make a channel 28 feet deep and approximately 225 feet wide.

Money statement.

| | |
|---|---|
| July 1, 1906, balance unexpended | $ 9,797.36 |
| Amount appropriated by river and harbor act approved March 2, 1907 | 20,000.00 |
| | 29,797.36 |

| | |
|---|---|
| June 30, 1907, amount expended during fiscal year, for maintenance of improvement | 9,738.23 |
| July 1, 1907, balance unexpended | 20,059.13 |
| July 1, 1907, outstanding liabilities | 26.93 |
| July 1, 1907, balance available | 20,032.20 |

Amount that can be profitably expended in fiscal year ending June 30, 1909, for maintenance of improvement, in addition to the balance unexpended July 1, 1907 ..... 30,000.00

Submitted in compliance with requirements of sundry civil act of June 4, 1897, and of section 7 of the river and harbor act of 1899.

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## Appropriations.

| | | | |
|---|---|---|---|
| March 3, 1875 | $80,000.00 | June 13, 1902 | $75,000.00 |
| March 3, 1879 | 1,000.00 | March 3, 1903 | 192,850.00 |
| August 11, 1888 | 1,000.00 | March 3, 1905 | 10,000.00 |
| September 19, 1890 | 60,500.00 | March 2, 1907 | 20,000.00 |
| July 13, 1892 | 50,000.00 | Repayment | 3.26 |
| August 18, 1894 | 50,000.00 | Total | 655,353.26 |
| June 3, 1896 | 50,000.00 | | |
| March 3, 1899 | 65,000.00 | | |

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## Contract in Force.

Emergency Contract for Dredging at Entrance to Harbor.

Name of contractor: North American Dredging Company.

Contract entered into September 28, 1906.

Work to begin October 28, 1906; contract completed December 18, 1906.

Contract for dredging 15,625 cubic yards through outer bar at 60 cents per cubic yard.

Appendix T T—Report of Captain Fries—2133

Commercial Statistics for the Year Ending December 31, 1906.

| | | Incoming. | Outgoing. |
|---|---|---|---|
| Vessels: | | | |
| Steam | | 325 | 327 |
| Sailing | | 82 | 84 |
| Total | | 407 | 411 |
| Tonnage | | 319,440 | 327,203 |
| Draft, greatest | feet | 27¼ | 26¼ |
| Lumber | do | 45,525,000 | 2,097,000 |
| Coal | tons | 26,700 | 2,483 |
| Coke | do | 2,948 | 63 |
| Ores | do | 1,370 | 193 |
| Cement | do | 27,070 | 595 |
| Crude oil | do | 14,767 | 56 |
| Live stock | head | 8,293 | ..... |
| Onyx | cubic feet | 5,742 | ..... |
| Merchandise, general | tons | 33,115 | 7,550 |

Total amount of freight entered and cleared in 1906, 216,761 tons, an increase of 36 per cent over the preceding year.

No lines of transportation were established or abandoned during the year.

## T T 2.

## DEEP-WATER HARBOR AT SAN PEDRO BAY, CALIFORNIA.

The construction of the breakwater was continued during the year, under continuing contract dated June 7, 1900, with the California Construction Company, of San Francisco, Cal.

At the beginning of the fiscal year 1,967,204 tons of stone had been deposited in the substructure, which had been raised to mean lower low water, and was about completed for the length of 8,452 feet from its westerly end, and 121,265 tons had been placed in the superstructure. The amount of superstructure work done was the equivalent of 4,500 feet of completed wall.

During the fiscal year ending June 30, 1907, 2,576 tons of granite was placed in the substructure, and 48,129 tons of granite in the superstructure, making a total of 2,139,174 tons under the contract.

No work was done in extending the substructure during the year, the stone delivered in the substructure being used to bring it up to the required height, or in filling out the slopes.

During the year the superstructure was extended 2,106 feet, making the total length about 6,606 feet.

On March 4 and 5 a heavy southeast storm displaced about 2,000 feet of the contractor's trestle. This trestle rested on top of the superstructure and was held down by wire ropes. A number of stones in the outer wall of the superstructure of the uncompleted part of the breakwater were shifted and have had to be reset.

Work on the breakwater has already advanced far enough to shelter, during stormy weather, a large anchorage area and the entrance to the inner harbor.

Bulkheading and filling certain areas in the outer harbor has been in progress during the year by the Los Angeles Inter-urban Railway Company, the Outer Harbor Dock and Wharf Company (successors to Randolph H. Miner), the Pacific Wharf and Storage Company



(successors to John T. Gaffey and others), and the San Pedro, Los Angeles and Salt Lake Railroad Company.

Money statement.

| | |
|---|---|
| July 1, 1906, balance unexpended | $599,932.20 |
| Amount appropriated by sundry civil act approved March 4, 1907 | 92,915.00 |
| | 692,847.20 |
| June 30, 1907, amount expended during fiscal year, for works of improvement | 187,058.33 |
| July 1, 1907, balance unexpended | 505,788.87 |
| July 1, 1907, outstanding liabilities | 31,437.09 |
| July 1, 1907, balance available | 474,351.78 |
| July 1, 1907, amount covered by uncompleted contracts | 415,714.12 |
| Amount (estimated) required for completion of existing project | 100,000.00 |

| | |
|---|---|
| Amount that can be profitably expended in fiscal year ending June 30, 1909, for works of improvement, in addition to the balance unexpended July 1, 1907 | 100,000.00 |

Submitted in compliance with requirements of sundry civil act of June 4, 1897.

Appropriations.

| | | | |
|---|---|---|---|
| June 3, 1896 | $50,000.00 | June 30, 1906 | $290,000.00 |
| July 1, 1898 | 400,000.00 | March 4, 1907 | 92,915.00 |
| March 3, 1899 | 200.000.00 | | |
| March 3, 1901 | 146,000.00 | Total | 2,800,000.00 |
| June 28, 1902 | 311,085.00 | Receipts from sales | .05 |
| March 3, 1903 | 500,000.00 | | |
| April 28, 1904 | 350,000.00 | | |
| March 3, 1905 | 460,000.00 | Total | 2,800,000.05 |

Contract in Force.

Contract for Construction of Breakwater.

Name of contractor: California Construction Company.

Contract entered into June 7, 1900; approved June 27, 1900.

Work to begin August 4, 1900; contract to be completed December, 1906.

Contract extended for reasonable period.

Rates:

For substructure stone, $0.844 per ton of 2,240 pounds.

For superstructure stone, $3.10 per ton of 2,240 pounds.

For concrete, $6 per cubic yard.

Quantities (estimated):

Stone in substructure, 2,135,958 tons; stone in superstructure, 235,275 tons; total, 2,391,233 tons.

Concrete, 2,370 cubic yards.

Total consideration of contract (approximate): $2,563,046.05.

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Commercial Statistics for Year Ending December 31, 1906.

For commercial statistics see report of Wilmington Harbor, California.

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*Of the appropriation of $50,000 made by river and harbor act of June 3, 1896, for deep-water harbor at Santa Monica Bay, or San Pedro Bay, California, $35,555.76 was expended by the Board provided for by said act. For the full report of the Board, with its accompanying documents, see Senate Document No. 18, Fifty-fifth Congress, first session.

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## T T 3.
## IMPROVEMENT OF WILMINGTON HARBOR, CALIFORNIA.

Dredging under contract.—Under a contract dated September 8, 1905, and supplemental contract dated June 28, 1906, with A. A. Polhamus, of San Diego, Cal., there was dredged at the entrance to the harbor and dumped at sea 52,315 yards of material, at 46 cents per yard. This material consisted of fine sand and a few fragmental rock. The dredging was done to a depth of 22.5 feet.

Dredging with Government dredge.—The dredge San Pedro was employed during the year in dredging a 400-foot channel between the foot of the wharves and Deadmans Island to a depth of 21.5 feet below mean lower low water; between the wharves up to and including a portion of the turning basin, to a depth of 25 feet; and an additional channel 817 feet long and 20 feet deep along the easterly pierhead line as far north as the upper end of the wharves. A total of 827,320 cubic yards of material was dredged from 11,741 linear feet of cut, averaging 189 feet in width and varying from 2.5 feet to 27.5 feet deep. This material was wasted as follows:

| | Cubic yards. |
|---|---|
| East of the east jetty, upon concessions of Salt Lake Railroad Company | 484,420 |
| East of the east jetty, upon concessions of Pacific Wharf and Storage Company | 199,100 |
| On west side of Terminal Island, upon lands of Salt Lake Railroad Company | 88,600 |
| Behind Timms Point, upon concessions of Outer Harbor Dock and Wharf Company | 43,800 |
| Over east and west jetties near Deadmans Island | 11,400 |
| Total | 827,320 |

The material removed consisted of sand, clay, shell, cobbles, small fragmental rock, and old junk in varying proportions. In the lower 400 feet of cut along the westerly wharves and the upper 1,200 feet along the easterly wharves the material was particularly hard, and

very slow progress was made in its removal. Much sloughing occurred at different points where the underlying strata were quicksand, frequently requiring areas to be re-covered to remove fills of from 1 to 7 feet in depth after they had once been reduced to the required grade.

The following statement shows distribution of time for the dredge during the year:

| | Hrs. | min. |
|---|---|---|
| Moving and placing plant | 513 | 00 |
| Actual pumping | 4,568 | 50 |
| Repairs and alterations | 1,269 | 50 |
| Cleaning suction | 94 | 00 |
| Advancing | 645 | 13 |
| Removing wreck of Adelaide Cooper | 25 | 40 |
| Time lost to permit vessels to pass | 142 | 52 |
| Not working, 53 Sundays and 7 holidays | 1,440 | 00 |
| Not working, on account of southeast storm | 11 | 30 |
| Not working, on account of repairs to bulkhead | 49 | 05 |
| Total | 8,760 | 00 |

2136 Report of the Chief of Engineers, U. S. Army.

The following statement shows the cost of dredging during the year:

| | |
|---|---|
| Routine office work, labor, and maintenance | $2,060.04 |
| Care of plant, labor | 720.00 |
| Surveys, labor | 158.74 |
| Towage and dispatch work; labor, supplies, and hire of tow boat | 1,124.96 |
| Alterations and repairs to dredge and attendant plant; labor and material | 9,309.75 |

| | |
|---|---|
| Operating dredge, including superintendence, labor charges, fuel, fresh water, lubricants, and other supplies | 37,221.93 |
| Deterioration of plant and property | 16,069.71 |
| Total cost of dredging | 66,665.13 |
| Amount of material removed.....cubic yards | 827,320 |
| Cost per cubic yard | $0.08 |

Removal of the wreck Adelaide Cooper.—A diver and outfit were employed eight days during May in removing the old wreck of the bark Adelaide Cooper, which was wrecked during a storm in December, 1879, and was found buried in the sand partly west of the east project line about 800 feet north of Deadmans Island. The timbers in the bottom of the wreck were large and securely pinned and copper fastened, their tops being 10 to 14 feet below mean lower low water. Six hundred and fifty pounds of dynamite were used in blowing and cutting this wreck into pieces small enough to be removed with ordinary tackle. the whole area covered by the wreck, estimated at 3,300 square feet, was reduced to a depth of 2 to 3 feet below the required grade, at a cost of $471.42.

Miscellaneous work.—During September the dredge was beached and her sides, ends, and knuckles examined; portions of the fender rail and hull where worms were found to have entered were cut away and engraven pieces set in where required, and an additional strip of copper sheathing 14 inches wide was put on in the well, across the bows, and under the fender rail for 60 feet aft on each side. New galvanized bolts were also put through the spud

casings, replacing those entirely eaten off by the action of the salt water. These repairs cost $180.25.

The principal items of repair to the machinery of the dredge consisted in cleaning boilers in July and December; rolling leaky tubes and nipples; calking leaky seams; cutting out and replacing thirty defective rivets in reenforce sheets in steam drums; overhauling main engine and relining main pump; overhauling auxiliary machinery and cutter engine; replacing broken countershafts of starboard hauling winch, cutter engine, and cutter; putting new 20-inch suction pipe, elbow, and discharge connections to main pump in hold of dredge; reriveting cutter cage and replacing three broken cutter hubs with new castings. All the above repairs, with the exception of a small amount of boiler work, was performed by the dredge crew, the machine work being done in the machine shop aboard the dredge. The repairs were made at a cost of $8,377.75.

Repairs were made to launch Pedrito at a cost of $90.98.

Repairs to lighters, pontons, and skiffs were made at a cost of $660.77.

The lower end of the inclined ways, which had been worm-eaten, were replaced with new timbers at a cost of $109.98.



The boat landing at Government warehouse was repaired at a cost of $18.60.

This work was under the very efficient charge of Mr. R. A. Crawford, assistant engineer.

Money statement.

| | |
|---|---|
| July 1, 1906, balance unexpended | $140,710.82 |
| Amount appropriated by sundry civil act approved March 4, 1907 | 50,000.00 |
| Amount appropriated by river and harbor act approved March 2, 1907 | 113,000.00 |
| Receipts from sales, damages to dredge, etc | 88.75 |
| | 303,799.57 |
| June 30, 1907, amount expended during fiscal year, for works of improvement | 117,831.69 |
| July 1, 1907, balance unexpended | 185,967.88 |
| July 1, 1907, outstanding liabilities | 6,061.22 |
| July 1, 1907, balance available | 179,906.66 |

Appropriations.

| | | | |
|---|---|---|---|
| March 3, 1871 | $200,000.00 | July 13, 1892 | $51,000.00 |
| June 10, 1872 | 75,000.00 | June 3, 1896 | 50,000.00 |
| March 3, 1873 | 150,000.00 | June 13, 1902 | 250,000.00 |
| March 3, 1875 | 30,000.00 | March 3, 1905 | 100,000.00 |
| June 18, 1878 | 20,000.00 | June 30, 1906 | 100,000.00 |
| March 3, 1879 | 12,000.00 | March 2, 1907 | 113,000.00 |
| June 14, 1880 | 35,000.00 | March 4, 1907 | 50,000.00 |
| March 3, 1881 | 33,000.00 | | |
| August 2, 1882 | 100,000.00 | Total | 1,618,000.00 |
| July 5, 1884 | 50,000.00 | Receipts from sales and for injuries to dredge | 97.25 |
| August 5, 1886 | 75,000.00 | | |
| August 11, 1888 | 90,000.00 | Aggregate | 1,618,097.25 |
| September 19, 1890 | 34,000.00 | | |

## Contracts in Force.

### Contract for Dredging at Entrance to Harbor.

Name of contractor: A. A. Polhamus.

Contract entered into September 8, 1905; approved September 19, 1905.

Work to begin November 26, 1905.

Contract completed August 18, 1906.

Contract for dredging channel 400 feet wide and 22 feet deep through outer bar, at 46 cents per cubic yard.

### Supplemental Contract for Dredging at Entrance to Harbor.

Name of contractor: A. A. Polhamus.

Contract entered into June 28, 1906; approved July 12, 1906.

Work to begin July 12, 1906.

Contract completed August 18, 1906.

Contract for dredging 52,500 cubic yards, at 46 cents per cubic yard.

### Contract for Furnishing Crude Oil.

Name of contractor: Horatio T. Harper.

Contract entered into June 22, 1906; approved July 2, 1906.

Deliveries to begin July 1, 1906.

Contract completed June 30, 1907.

Twenty-one thousand barrels of oil for fuel for dredge delivered, at 50 cents per barrel.

Commercial Statistics for the Year Ending December 31, 1906.

[Furnished by the collector of customs at Los Angeles, Cal.]

| | Foreign commerce. | | Domestic commerce. | |
|---|---|---|---|---|
| | Incoming. | Outgoing. | Incoming. | Outgoing. |
| Vessels: | | | | |
| Steam | 3 | 3 | 1,009 | 1,005 |
| Sailing | 4 | 4 | 401 | 402 |
| Total | 7 | 7 | 1,410 | 1,407 |
| Tonnage | 12,564 | 12,564 | 629,592 | 628,374 |
| Draft, greatest feet | 24 | 18 | 24 | 18 |
| Lumber do | | | 447,182,128 | |
| Live stock tons | | | 1,637 | |
| Rail, steel do | | | 720 | |
| Wool do | | | 42 | |
| Coal do | | | 205 | 100 |
| Flour do | | | 262 | |
| Grain do | | | 21,633 | |
| General merchandise do | 130 | 95 | 11,950 | 13,647 |
| Crude oil barrels | | | 235,159 | 29,647 |
| Asphalt tons | | | | 2,897 |
| Salt do | | | | 100 |
| Cement barrels | 77,800 | | | |

Foreign commerce, 15,785 tons; domestic commerce, 991,691 tons; total, 1,007,476 tons, a decrease of 7 per cent from the preceding year.

No lines of transportation were established or abandoned during the year.

## T T 4.

## IMPROVEMENT OF SAN LUIS OBISPO HARBOR, CALIFORNIA.

No work was done during the year.

Work proposed with funds appropriated and pledged by act of March 2, 1907, has been advertised and a contract will be entered into with the San Francisco Bridge Company for the delivery of 151,140 tons (of 2,000 pounds each) of stone at $1.57 per ton.

Money statement.

| | |
|---|---|
| July 1, 1906, balance unexpended | $241.59 |
| Amount appropriated by river and harbor act approved March 2, 1907 | 63,660.00 |
| | 63,901.59 |
| June 30, 1907, amount expended during fiscal year, for works of improvement | 242.42 |
| July 1, 1907, balance unexpended | 63,659.17 |
| July 1, 1907, outstanding liabilities | 30.40 |
| July 1, 1907, balance available | 63,628.77 |
| Amount (estimated) required for completion of existing project | 200,000.00 |
| Amount that can be profitably expended in fiscal year ending June 30, 1909, for works of improvement, in addition to the balance unexpended July 1, 1907. Submitted in compliance with requirements of sundry civil act of June 4, 1897. | 100,000.00 |

Appropriations.

| | | | |
|---|---|---|---|
| August 11, 1888 | $25,000.00 | March 3, 1905 | $25,000.00 |
| September 19, 1890 | 40,000.00 | March 2, 1907 | 63,660.00 |
| July 13, 1892 | 30,000.00 | Total | 368,660.00 |
| August 18, 1894 | 40,000.00 | Receipts from sales | .95 |
| June 3, 1896 | 40,000.00 | | |
| March 3, 1899 | 55,000.00 | Aggregate | 368,660.95 |
| June 13, 1902 | 50,000.00 | | |

Commercial Statistics for the Year Ending December 31, 1906.

[Furnished by the Pacific Coast Railway Company.]

| | | Incoming. | Outgoing. |
|---|---|---|---|
| Vessels: | | | |
| Steam | | 236 | 236 |
| Sailing | | | |
| Total | | 236 | 236 |
| Tonnage | | 194,950 | 194,950 |
| Draft, greatest | feet | 26 | 26 |
| Merchandise, general | tons | 10,722 | 2,194 |
| Coal | do | 305 | |
| Lumber | feet | 9,303,000 | |
| Grain | tons | 55 | 15,818 |
| Bituminous rock | do | | 1,468 |
| Crude oil | barrels | | 3,188,381 |

Total amount of freight entered and cleared in 1906, 580,564 tons, an increase of 30 per cent over the preceding year.

The only transportation line established during the year was one 8-inch pipe line from the Santa Maria oil fields to port Harford.

[Stamped]: Drafting Room File

UNITED STATES [Emblem] OF AMERICA
WAR DEPARTMENT

Washington, November 15, 1930.

I hereby certify that the attached pamphlet is a true copy of an extract from the Annual Report of the Chief of Engineers, 1907, on file in the Office of the Chief of Engineers, United States Army.

Lytle Brown
Lytle Brown,
Major General,
Chief of Engineers.
BW

I hereby certify that Lytle Brown, who signed the foregoing certificate, is the Chief of Engineers, United States Army, and that to his certification as such full faith and credit are and ought to be given.

In testimony whereof I, Patrick J. Hurley, Secretary of War, have hereunto caused the Seal of the War Department to be affixed and my name to be subscribed by

(Testimony of Charles A. Hale)

the Assistant and Chief Clerk of the said Department, at the City of Washington, this -18th- day of November, 1930.

[Seal] Patrick J. Hurley
Secretary of War.

By John C. Scofield
Assistant and Chief Clerk.

No. Q-12-J. City of LA vs. Borax Plf Exhibit No. 24 Filed 11/14 1933 R. S. Zimmerman, Clerk By Cross Deputy Clerk

At this point the court sustained defendants' objection to the introduction of the certified copy of the transcript of record of the United States Supreme Court in the case of De Guyer v. Banning which had been marked as Plaintiff's Exhibit No. 13. To the ruling, the plaintiff duly excepted.

CHARLES A. HALE

was recalled and testified as follows:

That he had prepared a composite map of the Norway Survey in 1880; of the Turner Survey in 1889, Plaintiff's Exhibit No. 5; United States Pierhead Lines in 1908, Plaintiff's Exhibit No. 12; Dessery Survey of 1909, Plaintiff's Exhibit No. 15; the Norway Survey of 1880, to wit, meander lines of the patent; and the test hole locations made under the supervision of Charles A. Hale and

(Testimony of Charles A. Hale)

Eugene Merwin, Plaintiff's Exhibit No. 17, which map was offered and received in evidence and marked Plaintiff's Exhibit No. 25, which said evidence was received over the objection of defendants that it was subject to all of the grounds of objection included in the objections stated with respect to the respective maps which were carried into this compilation.

[For copy of Plaintiff's Exhibit No. 25 see page 29 Book of Exhibits.]

The witness further testified:

"THE COURT: Show me again on Exhibit 25 the boundary of the ground, the title to which is not in dispute.

A That is the ground (indicating). Inside of this 5.1 line.

MR. ASHBURN: Under the three-story factory building?

A Yes, sir.

THE COURT: The portion that was originally property patented, that is within the heavy blue line?

MR. BUTTS: That is right. And that is the portion to the north, that we see on this map here.

MR. ASHBURN: That is according to their contention.

MR. BUTTS: That is what I mean.

THE COURT: How close is that to the concrete building?

A Well, you see the outline of the building here is hatched."

Thereupon the plaintiff moved to dismiss as to the fictitious defendants designated as John Doe Corporation Two, John Doe One, John Doe Two, John Doe Three, John Doe Four, John Doe Five, Jane Doe One, Jane Doe Two, Jane Doe Three, Jane Doe Four and Jane Doe Five. The Title Insurance and Trust Company was served as John Doe Corporation One; it appeared and filed a disclaimer.

Thereupon plaintiff rested.

Thereupon the defendants made the following motion:

"MR. ASHBURN: At this time, if your Honor please, we move the court for an order of dismissal of the plaintiff's case, or upon the plaintiff's complaint, upon the ground that the plaintiff has wholly failed to produce evidence proving or tending substantially to prove any of the controverted allegations of the complaint, and specifically that it has failed to prove or produce evidence tending to prove that the disputed area was, at the time of the Norway survey, or in fact any other time, tide land. Of course, we are still insisting upon the proposition that inasmuch as the Norway survey is conclusive, and your Honor has heard this evidence that has been received to date only as bearing upon what might or might not have been the condition at the time of the Norway survey, that there is double reason for the granting of the motion, first, the legal proposition as to the effect of the Norway survey, and secondly, that the evidence received is so remote, indirect and inaccurate, and of such slight evidentiary value as not to rise to a substantial amount of evidence throwing light upon the conditions prevailing at the time of the Norway survey."

Whereupon the court made the following observation, ruling or order:

"THE COURT: No, I think under the ordinary nonsuit rule, on that ground the motion would not lie. In other words, regardless of what the court might believe to be the evidence or preponderance of the evidence, nevertheless, all favorable inferences are adopted, and all unfavorable ones rejected, to require a dismissal. So, as far as that point is concerned, I don't care for any argument. I am very considerably concerned, however, over the original question which was presented here, the effect of the patent. Now, where do we stand with respect to it In other words, when the ruling was made, you proceeded to the evidence, of course, on the part of the plaintiff. Now, does that make any difference in the situation with respect to the effect of the patent? The question is a federal question and not a state question. The Supreme Court would not be an authority on this question, because, uniformly throughout the United States Supreme Court decisions a question of this kind is strictly a federal question.

* * *

However, I have come to a definite conclusion that the patent is superior and its authority is not open to collateral attack. I have come to that conclusion for the reasons that taking the language of Corpus Juris—a very clear statement is made in Corpus Juris to the effect that to the Land Department is given the duty of determining the character of the land. Now, obviously, in this case the Land Department was within its rights in finding that a certain portion of the land is open, is government

land; they had power to do that. Now, how is a limit going to be placed upon that? How is it possible, because it is a very familiar rule that where there is a tribunal that has jurisdiction to determine a question, it has jurisdiction to determine it wrong. It does not militate against the jurisdiction that it does not determine it correctly. That is a very familiar principle of law wherever this matter is involved. In land proceedings—and I am assuming that there is no dispute here that the patent is properly set forth; in other words, admitted by both sides—that was stated to begin with—

MR. ASHBURN: Yes, sir.

THE COURT: Now, I confess there might be some question of just how the matter is to be gotten at, but I am forced to this conclusion, because it is clearly and definitely decided in the United States Supreme Court decisions that the finding of the Land Department as to the character of the land prevails against proof that it is swamp and overflow land, for instance. The authorities are uniform, and a number of them quoted on that.

Now, the title here is no different. The State has title to the swamp land and the State had title to the tide lands, and the State has title to the swamp and overflow land by just as good title in the one case as in the other. Now, obviously, there must be some tribunal clothed with power to say what the land is, and not be left to litigation in different courts and other varying means, juries and other wise, 40 or 50 or 100 years afterwards. If the finding of the Land Department were not conclusive the State might stand by and wait for 100 years, yes, wait for 1000 years, because the statute of limitations will not run against the State, and raise the question at the end

of that time. It was raised here at, shall we say, 30 years afterwards?

MR. ASHBURN: 50.

THE COURT: Well, there was some question, was there not, before 1930?

MR. ASHBURN: 1929, when the suit was filed.

THE COURT: That would be about 49 years. It is clearly decided that the Land Department, with reference to swamp and overflow land, having reached a decision, that decision cannot be attacked collaterally; the tide land is in the same situation.

* * *

I will state that I am going to file a memorandum by the end of the week.

MR. BUTTS: An exception noted to your Honor's ruling?

THE COURT: Yes; exception noted at this time.

MR. ASHBURN: Now, on my counterclaim, your Honor, I would like to present some brief formal proofs which will lay the basis for quieting our title.

MR. BUTTS: I object to that; if this is a motion for judgment on the pleadings, there is no evidence to be introduced.

MR. ASHBURN: It is a motion to dismiss the plaintiff's complaint, upon the ground that no substantial evidence has been offered. Now, we have a number of counter-claims, which, in essence, or at least one of them is an action to quiet title, and what I want to produce now is the certified record relative to the Norway survey, and the deeds constituting our chain of title, bringing the title down into us. As I understand it, counsel has already, in substance, conceded—in fact, I think he stated

in the record that if the plaintiff is not the owner of the land in controversy, the defendant is. But I would like, on my cross-complaint, to introduce the formal proof, so that we may have a definite and final judgment.

* * *

MR. BUTTS: I will say this, that if the City does not own this land, then we don't make any contention that the Borax Company does not own it."

Defendants' Case

There was offered and received in evidence a certified copy of patent to William Banning, together with the procedings in the Land Department antecedent thereto, certified by the Land Department under date of July 23, 1929, together with certificate of July 23, 1929, which was marked Defendant's Exhibit A.

[EXHIBIT A]

1344135
B
KRT

4-207
D
UNITED STATES

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
WASHINGTON

July 23, 1929.

I hereby certify that the annexed copies of papers, filed under Los Angeles C. E. 807, and the record of patent based thereon, are true and literal exemplifications of the original papers and the record of patent on file in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

[Seal] D. K. Parrott
Acting Assistant Commissioner of the General Land Office.

1344135-1

[TO BE USED IN ALL CASES OF PRE-EMPTION ENTRY.]

UNITED STATES LAND OFFICE

at Los Angeles, Cala., March 10th, 1881.

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In the matter of the Pre-emption
Claim of William Banning
to Lot 1, Sec. 8.
Town. 5. S. R. 13 W
San Bernardino Meridian

Declaratory statement No. 1920, for Lot 1, Sec 8 Township 5 South, Range 13 West S Brn filed on the 10th day of December, 1880, alleging settlement on the 6th day of April, 1880, and reported in the un offered series.

Plat of survey filed in this Office on the 9th day of December, 1880.

There are no adverse claims of record.....

REMARKS*

Within withdrawal for Southern Pacific Railroad of May 10, 1871

Chas. R. Johnson—, Register.
J W Haverstick, Receiver.

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*Under this head, if the land is within the limits of a railroad grant, the date of withdrawal should be given; and if the land has been returned by the Surveyor General or withdrawn by order of the Commissioner as mineral, the fact should be noted.

1344135—2

(4-227.)

CERTIFICATE AS TO POSTING OF NOTICE.

Land Office at Los Angeles, Califa.

March 10th, 1881.

I, Chas. R. Johnson, Register, do hereby certify that a notice, a printed copy of which is hereto attached, was by my predecessor posted in a conspicuous place in my office for a period of thirty days, he having first posted said notice on the 11th day of January, 1881.

Chas. R. Johnson—
Register.

## NOTICE FOR PUBLICATION.
No. 3.

Land Office at Los Angeles, Cal.
January 11, 1881.

Notice is hereby given that the following-named settler has filed notice of his intention to make final proof in support of his claim, and secure final entry thereof. Said proof will be made before the Register and Receiver of the U. S. Land office at Los Angeles, Cal., on the 10th day of March, 1881. William Banning, preemption for lot 1, of Section 8, Township 5 south, Range 13 west, S. B. M., and names the following as his witnesses, viz.: E. N. McDonald, Thos. Powers, P. H. Downing and A. A. Polhemus, all of Wilmington, Cal.

Alfred James, Register.

1344135—3

## AFFIDAVIT OF PUBLICATION.

In the.....Court of the County of Los Angeles,

STATE OF CALIFORNIA.

Notice for Publication
of intention to make final proof of claim

State of California,
COUNTY OF LOS ANGELES. } ss.

D. M. Berry of the said county, being duly sworn, deposes and says, that he has no interest in the subject mat-

ter of the annexed notice. That he is Book-Keeper of THE DAILY COMMERCIAL, a newspaper published daily, Sunday and legal holidays excepted, in said county, and has charge of all of the advertisements in said newspaper, and that the Notice of which the annexed is a printed copy, has been published Daily in the above named paper, commencing on the 26th day of Jan 1881, and ending on the 10th day of March 1881 both days inclusive.

D. M. Berry

Subscribed and sworn to before me this 10th day of March 1881

Geo. S. Patton, Notary Public.

In the.....Court of Los Angeles County.

---

Affidavit of Publication.

Filed ..... .....Clerk, Per.....
Deputy.

NOTICE FOR PUBLICATION.

No. 3.

---

Land Office at Los Angeles, Cal.
January 11, 1881.

Notice is hereby given that the following-named settler has filed notice of his intention to make final proof in support of his claim, and secure final entry thereof. Said proof will be made before the Register and Receiver of the U. S. Land office at Los Angeles, Cal., on the 10th day of March, 1881. William Banning, preemption for lot 1, of Section 8 Township 5 south, Range 13 west,

S. B. M., and names the following as his witnesses, viz.: E. N. McDonald, Thos. Powers, P. H. Downing and A. A. Polhemus, all of Wilmington, Cal.

Alfred James, Register.

1344135-4

[4—061.]

## PRE-EMPTION PROOF.

## AFFIDAVIT REQUIRED OF PRE-EMPTION CLAIMANT.

Section 2262 of the Revised Statutes of the United States.

I, William Banning, claiming the right of pre-emption, under section 2259 of the Revised Statutes of the United States to Lot 1 of section number Eight, of township number Five South, of range number Thirteen West, S. B. M. subject to sale at....., do solemnly swear that I have never had the benefit of any right of pre-emption under said section; that I am not the owner of three hundred and twenty acres of land in any State or Territory of the United States, nor have I settled upon and improved said land to sell the same on speculation, but in good faith to appropriate it to my own exclusive use or benefit; and that I have not, directly or indirectly, made any agreement or contract, in any way or manner, with any person or persons whomsoever, by which the title which I may acquire from the Government of the United States should inure, in whole or in part, to the benefit of any person except myself.

William Banning

I, Chas. R. Johnson, Register, of the land office at Los Angeles, Califor., do hereby certify that the above affidavit was subscribed and sworn to before me this 10th day of March, A. D. 1881.

Chas. R. Johnson—
Register.

1344135—5

[4—062.]

NON-MINERAL AFFIDAVIT.

COUNTY OF Los Angeles, } ss.
State OF California. }

William Banning being duly sworn according to law, deposes and says that he is the identical William Banning who is an applicant for Government title to Lot 1, of Section 8 Township 5 South Range 13 West, S. B. M. that he is well acquainted with the character of said described land, and with each and every legal subdivision thereof, having frequently passed over the same; that his knowledge of said land is such as to enable him to testify understandingly with regard thereto; that there is not, to his knowledge, within the limits thereof, any vein or lode of quartz or other rock in place, bearing gold, silver, cinnabar, lead, tin, or copper, or any deposit of coal; that there is not within the limits of said land, to his knowledge, any placer, cement, gravel, or other valuable mineral deposit; that no portion of said land is claimed for mining purposes under the local customs or rules of miners or otherwise; that no portion of said land is worked

for mineral during any part of the year by any person or persons; that said land is essentially non-mineral land, and that his application therefor is not made for the purpose of fraudulently obtaining title to mineral land, but with the object of securing said land for agricultural purposes.

William Banning.

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Subscribed and sworn to before me this 11th day of March, A. D. 1881, and I hereby certify that the foregoing affidavit was read to the said William Banning previous to his name being subscribed thereto; and that deponent is a respectable person to whose affidavit full faith and credit should be given.

Chas. R. Johnson—
Register.

1344135-6

(The testimony of two witnesses, in this form, taken separately, required in each case.)

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## PRE-EMPTION PROOF.

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### TESTIMONY OF WITNESS.

Thomas Powers, being called as a witness in support of the pre-emption claim of William Banning to Lot 1, of Sec. 8, Township 5 South Range 13 West S. B. M.—testifies as follows:

Ques. 1. What is your Post-Office address?

Ans. Wilmington—Los Angeles Co- Cal

Ques. 2. What is your occupation?

Ans. Foreman on wharf at Wilmington

Ques. 3. Are you well acquainted with William Banning, the claimant in this case, and how long have you known him?

Ans. I am,—Have known him for about 3 years

Ques. 4. How old do you know or believe claimant to be?

Ans. About Twenty two—

Ques. 5. Is claimant the head of a family or a single person; and, if the head of a family, of whom does the family consist?

Ans. He is a single person

Ques. 6. Is claimant a native-born citizen of the United States? (If not, state, if you can, what steps..... has taken to become naturalized.)

Ans. He is a native born citizen of the U. S.

Ques. 7. Are you acquainted with the land above described

Ans. I am

Ques. 8. Do you live in the vicinity of the land?

Ans. Yes

Ques. 9. Is this land within the limits of an incorporated town, or has it been selected as the site of a city or town, and actually settled and occupied for purposes of trade and business?

Ans. I do not think it is in the limits of any town

Ques. 10. Are there any indications of coal, salines, or minerals of any kind on this land? If so, state what they are, and whether the springs or mineral deposits are valuable?

Ans. There are none.

Ques. 11. Is the land more valuable for agricultural than mineral purposes?

Ans. Yes

Ques. 12. Is the claimant the owner of 320 acres of land in any State or Territory? (State your knowledge in this regard.)

Ans. Not to my knowledge

Ques. 13. Has the claimant left or abandoned a residence on land of his own in this State to reside upon the land above described? (State your knowledge in this regard.)

Ans. Not that I know of.

Ques. 14. Has claimant ever filed a pre-emption declaratory statement for other land than that above described, or has he heretofore made a pre-emption entry? (State your knowledge in this regard.)

Ans. Not to my knowledge

Ques. 15. Do you know whether the claimant has given any mortgage on this land, or made any agreement to sell the same? (State your knowledge in this regard.)

Ans. Not to the best of my knowledge

Ques. 16. When did claimant first make settlement on the land, and what constituted his first act of settlement?

Ans. He settled there about a year ago in April—and built a house the— about that time.

Ques. 17. What improvements does the claimant possess on the land, and what is the value of the same?

Ans. He has planted gum trees—built the house and planted some small crops value about $35 or $40—in my judgment.

Ques. 18. When did claimant first establish a residence upon the land?

Ans. About a year ago in April

Ques. 19. Has claimant resided upon the land continuously ever since?

Ans. I think that he has.

Ques. 20. For what purpose has the land been used by claimant?

Ans. For agricultural purpose

1344135-8

Ques. 21. How much of the said land, if any, has been broken and cultivated since the claimant made settlement thereon?

Ans. Less than an acre—I dont know how much—

Ques. 22. Is it your belief that William Banning has acted in good faith in the settlement and improvement of the said land under the pre-emption laws? Have you any knowledge to the contrary?

Ans. It is my belief that he has acted in good faith and I have no knowledge to the contrary

Ques. 23. Are you interested in this claim?

Ans. No.

Thomas Powers

I hereby certify that witness is a person of respectability; that each question and answer in the foregoing testimony was read to him before he signed his name thereto, and that the same was subscribed and sworn to before me this Tenth day of March, 1881.

Chas R. Johnson—
Register.

Note—The officer before whom the testimony is taken should call the attention of the witness to the following

section of the Revised Statutes, and state to him that it is the purpose of the Government, if it be ascertained that he testifies falsely, to prosecute him to the full extent of the law.

Title LXX.—CRIMES.—Ch. 4.

Sec. 5392. Every person who, having taken an oath before a competent tribunal, officer, or person, in any case in which a law of the United States authorizes an oath to be administered, that he will testify, declare, depose, or certify truly, or that any written testimony, declaration, deposition, or certificate by him subscribed is true, willfully and contrary to such oath states or subscribes any material matter which he does not believe to be true, is guilty of perjury, and shall be punished by a fine of not more than two thousand dollars, and by imprisonment, at hard labor not more than five years, and shall, moreover, thereafter, be incapable of giving testimony in any court of the United States until such time as the judgment against him is reversed. [See § 1750.]

1344135-9

(4—375.)

## PRE-EMPTION PROOF.

## TESTIMONY OF CLAIMANT.

William Banning being called as a witness in his own behalf in support of his pre-emption claim to Lot 1 of Section 8, Township 5 South, Range 13 West, S. B. M. testifies as follows:

Ques. 1. What is your name? Be careful to give it in full, correctly spelled, in order that it may be here

written exactly as you wish it written in the patent which you desire to obtain.)

Ans. William Banning

Ques. 2. What is your age?

Ans. Twenty two years—

Ques. 3. Are you the head of a family, or a single person; and, if the head of a family, of whom does your family consist?

Ans. I am a single person

Ques. 4. Are you a native-born citizen of the United States? If not, have you declared your intention to become a citizen, and have you obtained a certificate of naturalization?*

Ans. I am a native born citizen of the United States.

Ques. 5. Is the land embraced in your pre-emption claim, above described, included within the limits of an incorporated town; or has it been selected as the site of a city or town, and actually settled and occupied for purposes of trade and business?

Ans. No.

Ques. 6. Are there any indications of coal, salines, or minerals of any kind on this land? (If so, state what they are, and whether the springs or mineral deposits are valuable.)

Ans. No. There are no such indications

Ques. 7. Is the land more valuable for agricultural than mineral purposes?

Ans. Yes

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*In case the party has been naturalized, or has only declared his intention to become a citizen, a certified copy of his certificate of naturalization or declaration of intention, as the case may be, must be furnished.

1344135-10

Ques. 8. What is your post-office address?

Ans. Wilmington, Los Angeles County Cal

Ques. 9. Are you the owner of 320 acres of land in any State or Territory?

Ans. No.

Ques. 10. Have you left or abandoned a residence on land of your own in this State to reside upon the land above described?

Ans. No

Ques. 11. Have you ever filed a pre-emption declaratory statement for other land than that above described? (If so, give as nearly as you can, the date thereof and description of the land.)

Ans. No.

Ques. 12. Have you heretofore made a pre-emption entry?

Ans. No.

Ques. 13. Have you settled upon and improved the land for which you now apply to sell the same on speculation?

Ans. No.

Ques. 14. Have you given any mortgage on this land, and have you made any agreement to sell the same?

Ans. No

Ques. 15. When did you make settlement on the land, and what constituted your first act of settlement?

Ans. On April 6th 1880—and putting up a house constituted my first act of settlement.

Ques. 16. What improvements, if any, were on the land at date of your settlement? (If any, state who owned them, and whether they now belong to you.)

Ans. A Fisherman named Tom Lackett lives in a shanty on the land but does not claim it—He stays there with my permission.

Ques. 17. What improvements have you made on this land subsequent to your first act of settlement? (Describe them, and state the total value of the improvements owned by you thereon.)

Ans. I have planted Eucalyptus trees & barley—& pumpkins—watermelons &c & have built a house—& dug a well—probable value say $75.00

1344135-11

Ques. 18. When did you first establish your residence upon the land?

Ans. April 6th 1880

Ques. 19. Have you resided upon the land ever since?

Ans. Yes

Ques. 20. What use have you made of the land?

Ans. Have used it for planting the crops mentioned

Ques. 21. How much of the land, if any, has been broken and cultivated since your settlement?

Ans. Less than an acre—but I can't tell exactly how much.

William Banning

I hereby certify that each question and answer in the foregoing testimony was read to the claimant before he signed his name thereto, and that the same was subscribed and sworn to before me this 10th day of March, 1881.

Chas R. Johnson—
Register.

---

Note.—The officer before whom the testimony is taken should call the attention of the witness to the following Section of the Revised Statutes, and state to him that it is the purpose of the Government, if it be ascertained that he testifies falsely, to prosecute him to the full extent of the law.

Title LXX.—CRIMES.—Ch. 4.

Sec. 5392. Every person who, having taken an oath before a competent tribunal, officer, or person, in any case in which a law of the United States authorizes an oath to be administered, that he will testify, declare, depose, or certify truly, or that any written testimony, declaration, deposition, or certificate by him subscribed is true, willfully and contrary to such oath states or subscribes any material matter which he does not believe to be true, is guilty of perjury, and shall be punished by a fine of not more than two thousand dollars, and by imprisonment, at hard labor, not more than five years, and shall, moreover, thereafter be incapable of giving testimony in any court of the United States until such time as the judgment against him is reversed. [See § 1750.]

1344135-12

(The testimony of two witnesses, in this form, taken separately, required in each case.)

## PRE-EMPTION PROOF.

### TESTIMONY OF WITNESS.

P. H. Downing, being called as a witness in support of the pre-emption claim of William Banning to Lot 1, of Sec. 8, Twp 5 South Range 13 West S. B. M. testifies as follows:

Ques. 1. What is your Post-Office address?

Ans. Wilmington Los Angeles Co—Cal

Ques. 2. What is your occupation?

Ans. I am Deputy Collector of customs

Ques. 3. Are you well acquainted with William Banning, the claimant in this case, and how long have you known him?

Ans. I am.—I Have known him 17 years

Ques. 4. How old do you know or believe claimant to be?

Ans.

Ques. 5. Is claimant the head of a family or a single person; and, if the head of a family, of whom does the family consist?

Ans. He is a single person

Ques. 6. Is claimant a native-born citizen of the United States? (If not, state, if you can, what steps he has taken to become naturalized.)

Ans. He is a native born citizen of the U. S.

Ques. 7. Are you acquainted with the land above described?

Ans. Yes.

Ques. 8. Do you live in the vicinity of the land?

Ans. Yes.

Ques. 9. Is this land within the limits of an incorporated town, or has it been selected as the site of a city or town, and actually settled and occupied for purposes of trade and business?

Ans. No. I think not.

Ques. 10. Are there any indications of coal, salines, or minerals of any kind on this land? If so, state what they are, and whether the springs or mineral deposits are valuable.

Ans. No. I don't know of any

1344135-13

Ques. 11. Is the land more valuable for agricultural than mineral purposes?

Ans. Yes

Ques. 12. Is the claimant the owner of 320 acres of land in any State or Territory? (State your knowledge in this regard.)

Ans. Not to my knowledge

Ques. 13. Has the claimant left or abandoned a residence on land of his own in this State to reside upon the land above described? (State your knowledge in this regard.)

Ans. I think not.

Ques. 14. Has claimant ever filed a pre-emption declaratory statement for other land than that above described, or has he heretofore made a pre-emption entry? (State your knowledge in this regard.)

Ans. Not to my knowledge

Ques. 15. Do you know whether the claimant has given any mortgage on this land, or made any agreement to sell the same? (State your knowledge in this regard.)

Ans. I don't know of any

Ques. 16. When did claimant first make settlement on the land, and what constituted his first act of settlement?

Ans. I think—in April 1880. He then put a house there.

Ques. 17. What improvements does the claimant possess on the land, and what is the value of the same?

Ans. A dwelling house—some lumber a stove &c—about $75—value

Ques. 18. When did claimant first establish a residence upon the land?

Ans. I think in April 1880

Ques. 19. Has claimant resided upon the land continuously ever since?

Ans. My impression is that his residence is there but he has worked on vessels & in Wilmington.

Ques. 20. For what purpose has the land been used by claimant?

Ans. Agricultural

1344135-14

Ques. 21. How much of the said land, if any, has been broken and cultivated since the claimant made settlement thereon?

Ans.—I can't say—a small piece

Ques. 22. Is it your belief that William Banning has acted in good faith in the settlement and improvement of the said land under the pre-emption laws? Have you any knowledge to the contrary?

Ans. It is my belief that he has acted in good faith & I have no knowledge to the contrary.

Ques. 23. Are you interested in this claim?

Ans. No

P. H. Downing

I hereby certify that witness is a person of respectability; that each question and answer in the foregoing testimony was read to him before he signed his name thereto, and that the same was subscribed and sworn to before me this tenth day of March, 1881.

Chas R. Johnson -
Register.

NOTE.—The officer before whom the testimony is taken should call the attention of the witness to the following section of the Revised Statutes, and state to him that it is the purpose of the Government, if it be ascertained that he testifies falsely, to prosecute him to the full extent of the law.

Title LXX.—CRIMES.—Ch. 4.

Sec. 5392. Every person who, having taken an oath before a competent tribunal, officer, or person, in any case in which a law of the United States authorizes an oath to be administered, that he will testify, declare, depose, or certify truly, or that any written testimony, declaration, deposition, or certificate by him subscribed is true, wilfully and contrary to such oath states or subscribes any material matter which he does not believe to be true, is guilty of perjury, and shall be punished by a fine of not more than two thousand dollars, and by imprisonment, at hard labor, not more than five years, and shall, moreover, thereafter,

be incapable of giving testimony in any court of the United States until such time as the judgment against him is reversed. [See § 1750.]

1344135-15

[Across face] Duplicate

No. 807 Receiver's Office at Los Angeles Cal

March 10, 1881.

Received from William Banning of Los Angeles County, California, the sum of Forty-seven dollars and 20 cents; being in full for the Lot. 1. quarter of Section No. 8, in Township No. Five (5) South, of Range No. Thirteen (13) West, S Brn containing Eighteen acres and Eighty-Eight hundredths, at $2.50 per acre.

$47.20 J. W. Haverstick, Receiver.

1344135-16

No. 807 Receiver's Office at Los Angeles Cal

March 10th, 1881.

Received from William Banning of Los Angeles County, California, the sum of Forty-Seven dollars and 20 cents; being in full for the Lot 1, quarter of Section No. 8, in Township No. Five (5) South, of Range No. Thirteen (13) West S Brn, containing Eighteen acres and 88 hundredths, at $2.50 per acre.

$47.20 J. W. Haverstick, Receiver.

658

1344135-17

No. 807 Land Office at Los Angeles Cal

March 10th, 1881.

It is hereby certified that, in pursuance of law, William Banning Los Angeles County, State of California, on this day purchased of the Register of this Office the lot or Lot 1, of Section No. 8 in Township No. Five (5) South of Range No. Thirteen (13) West S Brn, containing Eighteen 88/100 acres, at the rate of Two Dollars and 50 cents per acre, amounting to Forty-seven dollars and 20 cents, for which the said William Banning has made payment in full as required by law.

Now, therefore, be it known that, on presentation of this certificate to the COMMISSIONER OF THE GENERAL LAND OFFICE, the said William Banning shall be entitled to receive a Patent for the lot above described.

Chas. R. Johnson, Register.

1344135-18

No. 807

CASH ENTRY.

LAND OFFICE AT

Los Angeles Cal

Sec. 8 Town. 5 S Range 13 W

San Bernardino Meridian

William Banning

March 10, 1881.

D. S. No. 1920 Lot 1,

Filed

Dec. 10, 1880

Settlement

April 6, 1880

Send patent to

Britton & Gray

Washington

D. C.

1881—71417

No conflict June 2, 1881

Approved C. B.

Sept. 28th 1881.

Ex. D. H. G.

Pat'd Dec 30 1881

Rec. Vol 3 Page 185

G s w

96 Ex.

1344135-19

THE UNITED STATES OF AMERICA,

To all to whom these presents shall come, Greeting:

Certificate
No. 807 } WHEREAS William Banning, of Los Angeles County California, has deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at Los Angeles, California, whereby it appears that full payment has been made by the said William Banning, according to the provisions of the Act of Congress of the 24th of April, 1820, entitled "An Act making further provision for the sale of the Public Lands," and the acts supplemental thereto, for the lot numbered one, of section eight, in township five south, of range thirteen west of San Bernardino Meridian, in California, containing eighteen acres, and eighty-eight hundredths of an acre, according to the Official Plat of the Survey of the said Lands, returned to the General Land Office by the Surveyor-General, which said Tract has been purchased by the said William Banning

Now know ye, That the United States of America, in consideration of the premises, and in conformity with the several Acts of Congress in such case made and provided, have given and granted, and by these presents do give and grant, unto the said William Banning, and to his heirs, the said Tract above described: To have and to hold the same, together with all the rights, privileges, immunities, and appurtenances, of whatsoever nature, thereunto belonging, unto the said William Banning and to his heirs and assigns forever; subject to any vested and accrued water rights for mining, agricultural, manufacturing, or

other purposes, and rights to ditches and reservoirs used in connection with such water rights as may be recognized and acknowledged by the local customs, laws, and decisions of courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law.

In testimony whereof, I, Chester A. Arthur, President of the United States of America, have caused these letters to be made Patent, and the Seal of the General Land Office to be hereunto affixed.

Given under my hand, at the City of Washington, the thirtieth day of December, in the year of our Lord
L.S. one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and sixth.

BY THE PRESIDENT: Chester A. Arthur

By Wm H. Cook, Secretary.

S W. Clark, Recorder of the General Land Office.

No. Q-12-J City of LA vs. Borax Deft Exhibit No. A Filed 11/15 1933 R. S. Zimmerman, Clerk By Cross Deputy Clerk

There was offered and received in evidence a certified copy of the Norway agreement, oath, bond, and instructions, which was marked Defendant's Exhibit B.

[EXHIBIT B]

"B"

4-207

RGO [in ink]

UNITED STATES
DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
WASHINGTON

July 23, 1929.

I hereby certify that the annexed copies of papers and letters, relating to contract No. 159, dated March 10, 1880, are true and literal exemplifications of the originals on file in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

[Seal]

D. K. Parrott
Acting Assistant Commissioner of
the General Land Office.

S-1

This Agreement, made this 10th day of March A. D. 1880, between THEODORE WAGNER, Surveyor-General of the United States, for California, acting for and in behalf of the United States, party of the one part, and W. H. Norway, of Santa Barbara, Cala, of the other part, Witnesseth, That the said W. H. Norway, for and in consideration of the conditions, terms, provisions and covenants hereinafter expressed, and according to the true intent and meaning thereof, does hereby, covenant, promise and agree with the said Surveyor-General, in his capacity aforesaid, that he, the said W. H. Norway in his own

proper person, with the assistance of such Chain-Men, Axe-Men, Flag-Bearers, and others, as may be necessary agreeably with the laws of the United States, and in strict conformity with the printed Manual of Surveying Instructions, issued by the General Land Office, which is hereby incorporated with, and made part of this contract, and with such special Instructions as he may receive from the Surveyor-General, in conformity therewith, will well, truly and faithfully run, measure and mark all lines necessary to survey and connect with the lines of the public surveys, the tract of land in Township 5 South, Range 13 West, San Bernardino Meridian, known as "Mormon Island", and supposed to be in the N.W.¼ of Section 8 of said township, provided that no lands embraced by any private grant, shall be subdivided; and that he will complete these surveys in the manner aforesaid and return the true and original Field Notes thereof to the Office of the said Surveyor-General, on or before the 30th. day of June next ensuing the date hereof, (acts of God excepted) on penalty of forfeiture and paying to the United States the sum specified in the annexed Bond, if default be made in any of the foregoing conditions.

And it is further expressly stipulated, and made a condition of this contract, that the surveys herein described shall not be commenced before he shall have been officially notified by the Surveyor-General of the approval of this Contract, by the Commissioner of the General Land Office.

And the said Theodore Wagner, in his capacity as Surveyor-General as aforesaid, covenants, and agrees with the said W. H. Norway that on the completion of the surveys above named, in the manner aforesaid there shall

be paid to the said W. H. Norway on account of the United States, by the Treasury Department, after the receipt of his account at U. S. General Land Office, properly certified by the U. S. Surveyor-General, and accompanied by the approved plats of the surveys for which the account is rendered, as a full compensation for all actual and necessary expenses incurred in surveying and making the return thereof and $8.00/100 per diem for each and every day actually and necessarily employed in making said survey and return, when sufficient deposits shall have been made in the U. S. Treasury for that purpose by the parties in interest.

And it is further understood and agreed by and between the parties of this agreement, that the said surveys will not be approved by the said U. S. Surveyor-General unless they shall be found to be in exact accordance with the requirements in the printed Manual of Surveying Instructions; Provided, also that no member of Congress, or subcontractor, shall have any part or interest in this contract, and that no payment shall be made for any surveys not executed by the said U. S. Deputy Surveyor in his own proper person.

In Testimony Whereof, the parties to these Articles of Agreement have hereunto set their hands and seals the day and year first above written.

Signed, sealed and acknowledged
before us—
J. K. Carter
A. S. Cooper

Theo Wagner (Seal)
U. S. Surveyor-General for California.
W. H. Norway (Seal)
U. S. Deputy Surveyor

S-2

AFFIDAVIT OF U. S. DEPUTY SURVEYOR.

I, W. H. Norway U. S. Deputy Surveyor, do solemnly swear that I will truly, faithfully and impartially execute the surveys mentioned in the foregoing Agreement, to the best of my skill and ability, in accordance with the laws and instructions therein mentioned.

W. H. Norway
U. S. Deputy Surveyor.

Sworn and subscribed before me, this 13th day of March, 1880

[Seal] A. S. Cooper
Notary Public

—o—

Know all men by these Presents, That we W. H. Norway, as principal, and C. S. Holmes and Robert G. Byxbee, as sureties, are held and firmly bound unto the United States in the sum of One hundred (100) dollars, lawful money of the United States (being double the estimated amount which would be due by the United States to the said W. H. Norway, on the completion of the surveys named in the foregoing contract;) for which payment, well and truly to be made, we bind ourselves, our heirs, executors, and administrators, and each and every one of us and them, jointly and severally, firmly by these presents. Signed with our hands, and sealed with our seals, this 19th day of March, 1880.

The condition of the above Obligation is such, That if the above-bounden W. H. Norway shall well and truly and faithfully, according to the laws of the United States

and the instructions of the said Surveyor-General, and in strict conformity with the printed Manual of Surveying Instructions, make and execute the surveys which are required of him to be made by the foregoing contract, and return the field-notes of the said surveys the Surveyor-General, in the manner and within the period named in the said contract, then this obligation to be void, or otherwise it shall remain in full force and virtue.

W. H. Norway [Seal]
C S. Holmes [Seal]
Robt G Byxbee [Seal]

Signed, sealed and acknowledged
before us—
Edwd. Chatlin

Residence 2199 Devisadero St
San Francisco Cal
W N Kempston

Residence 442 California St
San Francisco Cal

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You are to sign the foregoing contract, writing your name in full over or opposite "Deputy Surveyor," before two witnesses, whose residence must be given immediately underneath their signature, and fill the existing blank at the top thereof with the day and month in which you thus sign the same.

The Bond must be dated on the date it is signed by yourselves and sureties. The remaining blank must be filled with the names and residence, written in full, of two sureties, whose sufficiency for the amount must be certified in the above blank by the Surveyor-General. Yourself and sureties must sign the Bond, writing your

names in full, in the presence of two witnesses whose residence must be stated just below their signatures.

All erasures, mutilations, and interlining must be avoided.

S-3

## AFFIDAVITS OF SURETIES.

STATE OF CALIFORNIA, } ss.
City and County of San Francisco. }

I, C. S. Holmes one of the sureties on the official bond of W H Norway United States Deputy Surveyor for the District of California, do depose and say that I am worth, in unencumbered property, not exempt from execution under the laws of California One thousand dollars and upwards after payment of my just debts and liabilities, as follows: Real Estate, valued at $1000.00 and upwards and consisting of* improved and unimproved property in San Francisco California and Personal Estate, value at $1000 and upwards and consisting of† Stock in trade in store in said San Francisco all available on execution.

C. S. Holmes [Seal]

P. O. Address: San Francisco Cala.

Sworn to and subscribed before me this 19th day of March 1880

[Seal] James L King
Notary Public

STATE OF CALIFORNIA, } ss.
City and County of San Francisco. }

I Robert G. Byxbee one of the sureties on the official bond of W. H. Norway United States Deputy Surveyor

for the Distrsct of California, do depose and say that I am worth, in unencumbered property, not exempt from execution under the laws of California One thousand dollars and upwards, after payment of my just debts and liabilities as follows: Real Estate, valued at $1000 and consisting of* improved and unimproved real property in the County of State of California and Personal Estate, valued at $100.00 & upwards and consisting of† merchandise in the City & County of San Francisco. All available upon execution

Robt G. Byxbee [Seal]

P. O. Address: San Francisco Cala.

Sworn to and subscribed before me this 19th day of March 1880.

[Seal] James L King
Notary Public

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*Here state whether City property, whether improved or unimproved, or improved or unimproved lands, and where situated.

†Here describe the nature of the property, whether bonds, stocks, notes, &c.

N. B.—It must be made to appear that the property offered is available upon execution, or the bond will be rejected.

CERTIFICATE.

I, THEODORE WAGNER, do certify that in my opinion the sureties to the above Bond are sufficient, and I hereby approve the same. Witness my hand and seal at San Francisco, this 22nd day of March, 1880.

Theo Wagner
Surveyor General for California.

S-4

# OATH

Prescribed to be taken by all persons in the public service, by Act of Congress, approved July 2, 1872.

I, W. H. Norway do solemnly swear that I have never voluntarily borne arms against the United States, since I have been a citizen thereof; that I have voluntarily given no aid, countenance counsel or encouragement to persons engaged in armed hostility thereto; that I have neither sought nor accepted, nor attempted to exercise the functions of any office whatever under any authority, or pretended authority, in hostility to the United States; that I have not yielded a voluntary support to any pretended Government, authority, power, or Constitution within the United States, hostile or inimical thereto. And I do further solemnly swear, that, to the best of my knowledge and ability, I will support and defend the Constitution of the United States against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same; that I take this obligation freely, without any mental reservation or purpose of evasion, and that I will well and faithfully discharge the duties of the office on which I am about to enter. So help me God.

W. H. Norway [Seal.]

Subscribed and sworn to before me this 13th day of March 1880

[Seal] James L. King
Notary Public

A. S. Cooper
Notary Public

1880

22333-3

No. 159

CONTRACT AND BOND.

Surveyor-General's Office,
San Francisco March 10th, 1880.

THEO. WAGNER,
U. S. Surveyor-General.

W. H. Norway
U. S. Deputy-Surveyor.

$50.00

Contract approved by Comms May 6, 1880
Payable from Special deposits to be made when amount of Deputy's claim shall have been determined.
Compensation waived
See telegram from S. G. Nov 11, 1880
Recorded in Contract Book No. 6 page 156

32

J. E.

Department of the Interior.
General Land Office,
Washington, D. C., May 6th, 1880.

Theo. Wagner Esq.,
Surveyor General,
San Francisco, Cal.

Sir:

W. H. Norway. Contract #159.

Referring to your letter of the 22d March 1880, transmitting Contract and Bond No. 159 dated March 10, 1880 made with W. H. Norway, D.S. liability $50.00 payable from special deposit, to my letter of April 5, 1880, suspending approval of said contract, and to your letter of the 21st April, 1880, transmitting deposition

of P. Banning relative to Mormon Island the survey of which was provided in said Contract, I hereby approve the Contract.

You will instruct the Deputy to note the width and depth of the channels upon either side of the Island, the height of the Island above high water mark, and the area of the arable lands thereon.

Very respectfully,

J. A. Williamson.
Commissioner.

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S-5

Theo. Wagner
U. S. Surveyor-General.

Theo. Reichert,
Chief Clerk.

Department of the Interior
U. S.
SURVEYOR GENERAL'S OFFICE,
For the District of California,
610 Commercial Street,
P. O. Box No. 2280

San Francisco August 26th 1880

Hon J. A. Williamson,
Comr. Genl. Land Office
Washington D. C.

Sir,

I have the honor to transmit herewith 1 Plat and Transcript of fractional Township No. 5 South, R 13 W, S. B. M., showing the location of Mormon Island, surveyed by W. H. Norway under Contract #159, March 10, 1880.

Very respectfully

Theo Reichert
chief clerk U. S. Surv. Genl. of Cala

672

#

S 6

No. 58310

THEO. WAGNER,
U. S. Surveyor-General for California.
Date, August 26 1880

SUBJECT:

Transmitting Plat and Transcript, showing location of "Mormon Island" surveyed by W. H. Norway under Contract #159 March 10, 1880
Ex—Plat of field notes of Island Survey handed over to the Bookkeeper in Div. M., Sept 11, 1880.

S J D.

Referred to Division E
Received (G. L. O.) Sept 3 1880
1 paper

S. J. D.

Department of the Interior,
General Land Office
Washington, D. C. Nov. 12, 1880

Theodore Wagner Esq.,
U. S. Surveyor General
San Francisco, California

Sir:

I am in receipt of your telegram of the 11th inst. asking whether you should

97

file with Register plat of Township 5 S. R. 13 W. San Bernardino Meridian, duplicate of which was transmitted to this office with your letter of the 26th Aug't last. The returns of survey made of Mormon Island in the said township by Mr.

Norway Deputy Surveyor, under his Contract of March 10, 1880, payable out of a prospective deposit have been found correctly surveyed, and would have been reported for payment to the Treasury, had certificates of deposit been received here together with Mr. Norways account.

It appearing from your telegram that no deposits contemplated in Deputy Norways contract have been made to cover the cost of the survey in question and that the deputy has filed in your office written waiver of compensation, there is no apparent objection to your filing the plat approved by you on the 26th day of Aug't last, with the Register of the proper land office.

Very respectfully &c.

J. A. Williamson
Commissioner

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S 7

Blank No. 1.

THE WESTERN UNION TELEGRAPH COMPANY.

This Company Transmits and Delivers messages only on conditions, limiting its liability, which have been assented to by the sender of the following message.

Errors can be guarded against only by repeating a message back to the sending station for comparison, and the Company will not hold itself liable for errors or delays in transmission or delivery of Unrepeated Messages.

This message is an Unrepeated Message and is delivered by request of the sender, under the conditions named above.

A. R. BREWER, Sec'y. NORVIN GREEN, President.

6

Dated San Francisco Nov 11th 1880
Received at Dept Int, " " 4/6

To Hon. J. A. Williamson,
Commr. Gen. Land Offs.

READ THE NOTICE AT THE TOP

Shall I file with register plate of township five south range thirteen west S. B. M. forwarded to your office with letter of Aug twenty sixth deputy Norway has filed written waiver of compensation

Theo Wagner
Surveyor Genl.

49 Paid
J.R.
RM

Call my attention to this
Comr.

Special Com

(12)

DOUBLE CORNERS

Such corners are to be nowhere except on the base and standard lines, whereon are to appear both the corners which mark the intersections of the lines which close thereon, and those from which the surveys start on the north. On these lines, and at the time of running the same, the township, section, and quarter section corners are to be planted, and each of these is a corner common

to two, (whether township or section corners,) on the north side of the line, and must be so marked.

The corners which are established on the standard parallel, at the time of running it, are to be known as "standard corners," and, in addition to all the ordinary marks, (as herein prescribed,) they will be marked with the letters S. C. Closing corners will be marked with the letters C. C. in addition to other marks.

The standard parallels are designed to be run in advance of the contiguous surveys on the south of them, but circumstances may exist which will impede or temporarily delay the due extension of the standard; and when, from uncontrollable causes, the contiguous townships must be surveyed in advance of the time of extending the standard, in any such event it will become the duty of the deputy who shall afterwards survey any such standard to plant thereon the double set of corners, to wit, the standard corners, to be marked S. C., and the closing ones which are to be marked C. C.; and to make such measurements as may be necessary to connect the closing corners and complete the unfinished meridianal lines of such contiguous and prior surveys, on the principles herein set forth, under the different heads of "exterior or township lines," and of "diagram B."

You will recollect that the corners, (whether township or section corners,) which are common to two, (two townships or two sections,) are not to be planted diagonally like those which are common to four, but with the flat sides facing the cardinal points, and on which the marks and notches are made as usual. This, it will be perceived, will serve yet more fully to distinguish the standard parallels from all other lines.

## THE MEANDERING OF NAVIGABLE STREAMS.

1. Standing with the face looking down stream, the bank on the left hand is termed the "left bank," and that on the right hand the "right bank." These terms are to be universally used to distinguish the two banks of a river or stream.

(13)

2. Both banks of navigable rivers are to be meandered by taking the courses and distances of their sinuosities, and the same are to be entered in the field book.

At those points where either the township or section lines intersect the banks of a navigable stream, posts, or, where necessary, mounds of earth or stone, are to be established at the time of running these lines. These are called "meander corners;" and in meandering you are to commence at one of those corners on the township line, coursing the banks, and measuring the distance of each course from your commencing corner to the next "meander corner," upon the same or another boundary of the same township, carefully noting your intersection with all intermediate meander corners. By the same method you are to meander the opposite bank of the same river.

The crossing distance between the meander corners on same line is to be ascertained by triangulation, in order that the river may be protracted with entire accuracy. The particulars to be given in the field notes.

3. You are also to meander, in manner aforesaid, all lakes and deep ponds of the area of twenty-five acres and upwards; also navigable bayous; shallow ponds, readily to be drained, or likely to dry up, are not to be meandered.

You will notice all streams of water falling into the river, lake, or bayou you are surveying, stating the width of the same at their mouth; also all springs, noting the size thereof and depth, and whether the water be pure or mineral; also the head and mouth of all bayous; and all islands, rapids, and bars are to be noticed, with intersections to their upper and lower points to establish their exact situation. You will also note the elevation of the banks of rivers and streams, the heights of falls and cascades, and the length of rapids.

4. The precise relative position of islands, in a township made fractional by the river in which the same are situated, is to be determined trigonometrically—sighting to a flag or other fixed object on the island, from a special and carefully measured base line, connected with the surveyed lines, on or near the river bank, you are to form connexion between the meander corners on the river to points corresponding thereto, in direct line, on the bank of the island, and there establish the proper meander corners, and calculate the distance across.

5. In meandering lakes, ponds, or bayous, you are to commence at a meander corner upon the township line, and proceed as above directed for the banks of a navigable stream. But where a lake, pond, or bayou



lies entirely within the township boundaries, you will commence at a meander corner established in subdividing, and from thence take the courses and distances of the entire margin of the same, noting the intersection with all the meander corners previously established thereon.

6. To meander a pond lying entirely within the boundaries of a section, you will run and measure two lines thereunto from the nearest section or quarter section corner on opposite sides of such pond, giving the courses of such lines. At each of the points where such lines shall intersect the margin of such pond, you will establish a witness point, by fixing a post in the ground, and taking bearings to any adjacent trees, or, if necessary, raising a mound.

The relative position of these points being thus definitely fixed in the section, the meandering will commence at one of them, and be continued to the other, noting the intersection, and thence to the beginning. The proceedings are to be fully entered in the field book.

7. In taking the connexion of an island with the main land, when there is no meander corner in line, opposite thereto, to sight from, you will measure a special base from the meander corner nearest to such island, and from such base you will triangulate to some fixed point on the shore of the island, ascertain the distance across, and there establish a special meander corner, wherefrom you will commence to meander the island.

The field notes of meanders will be set forth in the body of the field book according to the dates when the work is performed, as illustrated in the specimen notes annexed. They are to state and describe particularly the meander corner from which they commenced, each one with which they close, and are to exhibit the meanders of each fractional section separately; following, and composing a part of such notes, will be given a description of the land, timber, depth of inundation to which the bottom is subject,

and the banks, current, and bottom of the stream or body of water you are meandering.

9. No blazes or marks of any description are to be made on the lines meandered between the established corners, but the utmost care must be taken to pass no object of topography, or change therein, without giving a particular description thereof in its proper place in your meander notes.

## ( 15 )

## OF FIELD BOOKS.

The field notes afford the elements from which the plats and calculations in relation to the public surveys are made. They are the source wherefrom the description and evidence of locations and boundaries are officially delineated and set forth. They therefore must be a faithful, distinct and minute record of every thing officially done and observed by the surveyor and his assistants, pursuant to instructions, in relation to running, measuring, and marking lines, establishing boundary corners, &c.; and present, as far as possible, a full and complete topographical description of the country surveyed, as to every matter of useful information, or likely to gratify public curiosity.

There will be sundry separate and distinct field books of surveys, as follows:

Field notes of the meridian and base lines, showing the establishment of the township, section or mile, and quarter section or half mile, boundary corners thereon; with the crossings of streams, ravines, hills, and mountains; character of soil, timber, minerals, &c.

Field notes of the "standard parallels, or correction lines," will show the establishment of the township, sec-

tion, and quarter section corners, besides exhibiting the topography of the country on line, as required on the base and meridian lines.

Field notes of the exterior lines of townships, showing the establishment of corners on lines, and the topography, as aforesaid.

Field notes of the subdivisions of townships into sections and quarter sections.

The field notes must in all cases be taken precisely in the order in which the work is done on the ground, and the date of each day's work must follow immediately after the notes thereof. The variation of the needle must always occupy a separate line preceding the notes of measurements on line.

The exhibition of every mile of surveying, whether on township or subdivisional lines, must be complete in itself, and be separated by a black line drawn across the paper.

The description of the surface, soil, minerals, timber, undergrowth, &c., on each mile of line, is to follow the notes of survey of such line, and not be mixed up with them.

No abbreviations of words are allowable, except of such words as are constantly occurring, such as "sec." for "section;" "in. diam," for

No. Q-12-J City of LA vs Borax Deft Exhibit No. B. Filed 11/15 1933 R. S. Zimmerman, Clerk By Cross Deputy Clerk

There was offered and received in evidence a certified copy of the Norway field notes, which was marked Defendant's Exhibit C.

[EXHIBIT C.]

"B" 207

UNITED STATES
DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
WASHINGTON

July 23, 1929.

I hereby certify that the annexed copy of field notes of survey of Mormon Island in T. 5 S., R. 13 W., S..B. M., California is a true and literal exemplification of the record on file in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the City of Washington, in the day and year above written.

[Seal] D. K. Parrott
Acting Assistant Commissioner of the General Land Office.

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239
California

Recd with letter from Sur Genl's Office dated Augt 26, 1880

Compensation waived against U. S. See telegram from S. G. dated Nov 11, 1880

# FIELD NOTES
—OF—

The Survey of Mormon Island, in Township 5 South Range 13 West. San Bernardino Meridian, California,

—BY—

W. H. Norway, Deputy Surveyor,

Under his Contract of March 10th 1880

Survey Commenced May 22nd 1880

Survey Completed May 24th 1880

242

## PRELIMINARY OATH OF ASSISTANTS.

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We, Frank H Mellus and Thomas Powers do solemnly swear that we will faithfully execute the duties of Chain Carriers; that we will level the chain upon uneven ground, and plum the tally pins, whether by sticking or dropping the same; that we will report the true distance to all notable objects, and the true length of all lines; that we will assist in measuring to the best of our skill and ability.

Frank H Mellus
Thomas Powers

Subscribed and sworn to before me, this 22nd day of May 1880

W H Norway
Commissioner of the U S Circuit Court for California.

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I, James H Teel do solemnly swear that I will well and truly perform the duties of Flagman and Mound builder according to instructions given me, and to the best of my skill and ability.

James A Teel

Subscribed and sworn to before me, this 22nd day of May 1880

W H Norway
Commissioner of the U S Circuit Court for California.

243

Survey of Mormon Island by

W H Norway under his contract with Theo Wagner, U. S. Surveyor General of California bearing date March 10th 1880 Survey commenced May 22nd 1880 To adjust my Instrument to the Var. of these lines, I began at the cor. to T 5 S, between Ranges 13 and 14 West, which I find established as per notes furnished me by the Office, being a mound and pits, the cor. to Secs. 1, 6, 7 and 12 being in sight bears South

Va. 13° 55′ East.

I then run

South between Secs. 1 and 6 on Range line between Ranges 13 and 14

Va. 13° 55′ East.

40.00 Find no traces of old corner as called for in former survey

80.03 The cor. to Secs. 1, 6, 7 and 12, which I find established with mound and pits from which a flag left on the west point of "Mormon Island" bears S 65½° E.

Va. 13° 55′ East.

From this corner I run a base at right angles N 24½° E 20.00 Chs. leave a flag.

40.00 Chs. leave a flag.

I then proceed to flag left at West point of Mormon Island where flag left at cor. to Secs. 1, 6, 7 and 12 bears N 65½° W

Va. 13° 55′ East

The flag left at 20.00 Chs. base bears N. 54° 05′ W and the flag left at 40.00 Chs. base bears

2 244

Survey of Mormon Island

N 43° 30′ W which would give a result by the two Triangulations of 99.02 Chs. which I establish for meander cor. No. 1 at ordinary high water mark from which a Redwood scantling Post 3x4 in [illegible] ag 3 ft. in the ground in mound of rocks, marked M. C. W. P. bears N 69° E. 25 lks. dist. for witness to meander cor. A house on the Island bears N 21° 6′ 1.06 chs. dist

From this point I Meander around the Island at ordinary high water mark

| No. | Course | Distance | Var. 13° 55′ East |
|---|---|---|---|
| 1st | N9° E | 8.07 chs | To Station 2 Thence |
| 2nd | N 1° E | 7.65 " | " " 3 " |
| 3d | N 11° W. | 5.50 " | " " 4 " |
| 4th | N 19¼° W | 8.54 " | " " 5 " |
| 5th | N 1° W | 2.40 " | " " 6 " |
| 6th | N 71¼° E | 1.50 " | " " 7 " |
| 7th | S 58° E | 6.50 " | " " 8 " |
| 8th | S 16¼° E | 2.88 " | " " 9 " |
| 9th | S 60¼° E | 4.00 " | " " 10 " |
| 10th | S 22¼° E | 3.14 " | " " 11 " |
| 11th | S 30¼° W | 9.00 " | " " 12 " |
| 12th | S 7° E | 10.00 " | " " 13 " |
| 13th | S 49° W | 6.07 " | " " 14 " |
| 14th | S 65° W | 2.15 " | " Place of beginning containing 18 88/100 Acres |

245 3

Survey of Mormon Island
General Description

This Island is known as Mormon Island situated in Wilmington Bay and is surrounded by a body of water connected with Ocean and subject to the ebb and flow of the tides.

Said Mormon Island is from three to five feet above ordinary high tide and separated from Rattle Snake Island by a channel about 150 to 200 feet. wide with an average depth of about 10 ft. At the lowest Tides said Island on the other side is seperated from Smiths Island by the usual Steamboat channel of depth sufficient for navigation at all stages of the Tides. The area of available land is about 18 acres as indicated in field notes of Survey

W H Norway
U S Deputy Surveyor.

Subscribed and sworn to before me this 9th day of July 1880

Theo Reichert
U S Commissioner

247

LIST OF NAMES

A list of the names of the individuals employed to assist in running, measuring or making the lines and corners described in the foregoing Field Notes of The Survey of Mormon Island in Township 5 South Range 13 West San Bernardino Meridian showing the respective capacities in which they acted.

.....Compassman.
Frank H. Mellus.....Chainman.
Thomas Power .....Chainman.
Jas A Teel.....Flagman and mound builder

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## FINAL OATHS OF ASSISTANTS.

We hereby certify that we assisted W H Norway Deputy Surveyor, in surveying the lines of Mormon Island in Township 5 South Range 13 West San Bernardino and that said Survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the boundary monuments planted according to the instructions furnished by the Surveyor-General.

Subscribed and sworn to, before me this
24th day of May, 1880
W H Norway
Commissioner of the U. S.
Circuit Court for Cal.

Frank H Mellus Chainman
Thomas Powers "
Jas A Teel Flagman & Moundman

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## FINAL OATH OF DEPUTY SURVEYOR.

I, W H Norway Deputy Surveyor, do solemnly swear that, in pursuance of a contract with THEO. WAGNER, United States Surveyor-General for California, bearing date the 10th day of March, 1880, I have well, faithfully and truly, in my own proper person, and in strict conformity with the instructions furnished by the Surveyor-General, the Surveying Manual, and the laws of the

United States, surveyed all those parts or portions of Mormon Island in Township 5 South, Range 13 West, San Bernardino Meridian as are represented in the foregoing Field Notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said surveys have been established and perpetuated in strict accordance with the Surveying Manual and printed instructions, and that the foregoing are the true and original Field Notes of each Survey.

W H Norway U. S. Deputy Surveyor.

Subscribed and sworn to, before me, this 25th day of May 1880

A W Potts
County Clerk
Los Angeles, Co., Cal.

249

U. S. SURVEYOR-GENERAL'S OFFICE,

San Francisco, Cal. Aug 26th 1880

The foregoing Field Notes of the Survey of Mormon Island in Township 5 South, Range 13 West San Bernardino Meridian in the State of California, executed by W. H. Norway U. S. Deputy Surveyor, under his contract dated March 10th 1880 having been critically examined, and the necessary corrections and explanations made, the said Field Notes and the Surveys they described are hereby approved.

Theo. Wagner
U. S. Surveyor-General for California.

U. S. Surveyor-General's Office.

San Francisco, Cal. Aug 26th 1880

I, THEO. WAGNER, U. S. Surveyor-General for California, do hereby certify that the foregoing Transcript has been correctly copied from the original Field Notes, as the same remain of record and on file in this office.

Attest my hand and official seal
the day and date herein above written.

[Seal] Theo Wagner
U. S. Surveyor-General for California.

No. Q-12-J. City of LA vs. Borax Consol. Deft Exhibit No. C Filed 11/15 1933 R. S. Zimmerman, Clerk By Cross Deputy Clerk

There was offered and received in evidence a certified copy of the plat which was made on the basis of the Norway survey and filed in the General Land Office, which was marked Defendant's Exhibit D.

[For copy of Defendant's Exhibit D see page 30 Book of Exhibits.]

There was offered and received in evidence a certified copy of deed from William Banning and others to Banning Company, conveying, among others, the whole of Mormon Island, which deed is found in Book 1006 of Deeds, page 91 of the records of Los Angeles County, which was marked Defendant's Exhibit E; that the said deed was in form and otherwise sufficient to convey to said Banning Company the whole of said Mormon Island according to the boundaries of said patent, defendants' Exhibit A.

"THE COURT: You are not making any question of the title, if it is not in the City?

MR. BUTTS: No, your Honor.

There was offered and received in evidence a certified copy of deed of February 29, 1908, from Banning Company to Joseph B. Banning, being recorded in Book 3359 of Deeds, page 1, Records of Los Angeles County, California, which was marked Defendant's Exhibit F; that said deed was in form and otherwise sufficient to convey and did convey to the said Joseph B. Banning all of that portion of the land included in said Government patent, defendants' Exhibit A, which is first described in the decree herein.

There was offered and received in evidence a certified copy of order for conveyance of real estate to person entitled to such conveyance, which was made in the Superior Court of Los Angeles County in the matter of the Estate of Joseph B. Banning, deceased, which is recorded in Book 425, page 369, of Official Records of Los Angeles County, which was marked Defendant's Exhibit G; that said order was sufficient in form and otherwise to authorize and did authorize and direct a conveyance to be made by the executrix of the estate of said decedent to Title Insurance and Trust Company of all that portion of the land included in said Government patent, defendants' Exhibit A, which is first described in the decree herein.

There was offered and received in evidence a certified copy of deed from Katherine S. Banning, Executrix of the Estate of Joseph B. Banning, deceased, which is recorded in Book 566, page 331, Official Records of Los Angeles County, which was marked Defendant's Exhibit

H; that the said deed was in form and otherwise sufficient to convey to the said Title Insurance and Trust Company all that portion of the land included in said Government patent, defendants' Exhibit A, which is first described in the decree herein.

There was offered and received in evidence a certified copy of deed from Title Insurance and Trust Company to Borax Consolidated Limited, which was executed on or about April 24, 1923, and recorded on May 3, 1923, in Book 2329, page 1, Official Records of Los Angeles County, which was marked Defendant's Exhibit I; that said deed was sufficient in form and otherwise to convey to said Borax Consolidated, Limited, one of the defendants herein, all that portion of the land included in said Government patent, defendants' Exhibit A, which is first described in the decree herein.

There was offered and received in evidence a certified copy of quitclaim deed from William Banning and others to Borax Consolidated Limited, being recorded in Book 9360, page 154, Official Records of Los Angeles County, which was marked Defendant's Exhibit J; that said deed was executed on or about September 12, 1929, and recorded on September 13, 1929; that said deed was sufficient in form and otherwise to convey to said Borax Consolidated, Limited, one of the defendants herein, that portion of the land included in said Government patent, defendants' Exhibit A, included within the second description found in the decree herein.

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The above and foregoing is all of the material evidence introduced at the trial of said case and of all proceedings had in the trial thereof.

WHEREFORE, the City of Los Angeles, plaintiff and appellant, prays that the above Statement of Evidence be settled, approved and allowed by the above entitled court as a true, full, correct and complete statement of all the evidence taken and given on the trial of said cause for use on the appeal taken to the United States Circuit Court of Appeals for the Ninth Circuit.

Dated, Jan. 8, 1934.

Ray L. Chesebro
City Attorney

Loren A. Butts
Assistant City Attorney

Service of the foregoing proposed Statement of Evidence and receipt of a copy thereof this 9th day of January, 1934, is hereby admitted and acknowledged, and it is stipulated that the same may be settled and approved by the court as a true and correct statement of the evidence introduced at the trial of the above entitled action.

Newlin & Ashburn
by A. W. Ashburn
Solicitors for Defendants and Appellees

The foregoing Statement of Evidence, together with the exhibits therein referred to, is in all respects approved and settled as a true and complete statement of the evidence adduced on the trial of the above entitled action.

Dated Jan. 9, 1934.

Geo. Cosgrave
United States District Judge

[Endorsed]: Filed Jan 9-1934 R. S. Zimmerman, Clerk By L. Wayne Thomas Deputy Clerk

[TITLE OF COURT AND CAUSE.]

## PETITION FOR APPEAL

To the Honorable Geo. Cosgrave,

Judge of the United States District Court:

Your petitioner, the City of Los Angeles, a municipal corporation, plaintiff herein, respectfully shows:

That the petitioner is the plaintiff in the above entitled action; that a final decree was entered in the above entitled action against petitioner and in favor of Borax Consolidated, Limited, an English corporation, and Pacific Coast Borax Company, a Nevada corporation, on the 8th day of December, 1933, and entered in Volume 32 of Book of Equity Decrees, on page 964 thereof.

That your petitioner deems itself aggrieved thereby for errors assigned in the accompanying Assignment of Errors, filed simultaneously with this petition.

WHEREFORE, petitioner prays that an appeal be allowed from said decree to the United States Circuit Court of Appeals for the Ninth Circuit; that a citation issue; that a transcript of the record, proceedings and papers on which the said decree was based be made and duly authenticated and sent to the United States Circuit Court of Appeals for the Ninth Circuit, at San Francisco, California.

Dated, December 12, 1933.

Ray L Chesebro
City Attorney
Loren A. Butts
Assistant City Attorney
Attorneys for Plaintiff.

## ORDER ALLOWING APPEAL

The appeal is allowed, the plaintiff to furnish a bond in the sum of $250/00, conditioned according to law, said bond to be approved by the above entitled court.

Dated Dec. 12-1933.

Geo Cosgrave,

Judge of the District Court.

[Endorsed]: Filed Dec. 12, 1933 R. S. Zimmerman, Clerk, By Edmund L. Smith, Deputy Clerk.

IN THE DISTRICT COURT OF THE UNITED STATES SOUTHERN DISTRICT OF CALIFORNIA CENTRAL DIVISION

| | |
|---|---|
| THE CITY OF LOS ANGELES, a municipal corporation, Plaintiff, | No. Q-12-J |
| vs. | In Equity |
| BORAX CONSOLIDATED LIMITED, et al., Defendants. | |

## ASSIGNMENT OF ERRORS

Comes now the City of Los Angeles, a municipal corporation, plaintiff and appellant in the above entitled action, and files the following assignment of errors upon which it relies in the prosecution of the appeal herewith petitioned for in said cause from the decree of this court, entered on the 8th day of December, 1933:

I

The court erred in finding and determining that the Land Department of the United States Government had jurisdiction to determine the character of the land involved in this action and its findings and the patent issued to William Banning are conclusive, and that said patent

conveyed title to the land involved in this action to the said William Banning.

II

The court erred in finding and determining that the Land Department of the United States Government had jurisdiction to patent, grant or transfer title to the lands involved in this action.

III

The court erred in finding and determining that the meander lines as surveyed and established by the surveyor Norway constituted the boundary line of the area conveyed to William Banning by the patent.

IV

The court erred in finding and determining that the meander lines as surveyed and established by the surveyor Norway constituted the boundary line between tideland and upland.

V

The court erred in entering its decree herein dismissing plaintiff's bill of complaint and finding and determining that defendant Borax Consolidated Limited is the owner in fee simple of the land involved in this action.

VI

The court erred in finding and determining that the land involved in this action and described in paragraph XII of the bill of complaint was not tideland and submerged land.

VII

The court erred in finding and determining that the land involved in this action and described in paragraph XII of the complaint was not situated below the line of mean high tide of the Pacific Ocean, and was not situated within or below the line of mean high tide of the harbor, bay, estuary, or inlet of the Pacific Ocean, which was formerly known as the inner bay of San Pedro, now Los Angeles Harbor.

VIII

The court erred in finding and determining that the land involved in this action and described in paragraph XII of the complaint was not during the period from September 9, 1850, to May 1, 1911, or any part or portion of said period of time, owned and held by the State of California by virtue of its sovereignty.

IX

The court erred in refusing to admit evidence on behalf of plaintiff as follows:

The plaintiff offered in evidence a certified copy of the transcript of record in the case of De Guyer v. Banning, which was an action brought for the purpose of quieting title to Mormon Island. In that action it was claimed by the plaintiffs, who were the heirs of the original patentee to the Spanish grant of the Rancho San Pedro, that Mormon Island was a part of said grant, William Banning claiming title by virtue of the patent which had been issued to him by the United States Government. In the trial of that action William Banning testified as a

witness on behalf of himself and his testimony was recorded and became a part of the transcript on appeal, which testimony was as follows:

"I am the William Banning named in the patent just introduced in evidence; I think that it was in April, 1880 that I entered into possession of that island; I have been in possession of it to the present time, using it as a ship yard; my possession has been exclusive; no claim of any one else has been made to the possession, except this claim of the plaintiffs which I first knew of a year ago, about the time this suit was brought; this tract of land known as Mormon Island is an island; at about half tide it is an island, and is not an island at low water; at low water it is only partly surrounded by water; at low water it would not be surrounded with water; at mean high tide there would be about two feet of water around it; at high tide it is almost all covered with water.

CROSS-EXAMINED.

My possession began by my buying out the party who was then on it; I paid him to get off and then I went on; at the time that I went on I claimed that the title to it was in the government of the United States, and I continued to claim that it was public land of the United States until I obtained the patent for it from the United States, and then I claimed to own it from that time on; a very small portion of the island is above ordinary high water; at mean tide—at mean high tide—I don't think there is an acre above water; the descriptive clause in the

patent to me extends to mean low water; I think to include eighteen acres would carry it to mean low water; we occupied a portion of it that was covered with water; I have ship ways there and houses on piles; about an acre is covered in that way; another portion of the island we run lighters on and pile lumber on, when the high tide falls; we use in that way sometimes a couple of acres on the west side, the channel side of the island, and that kind of occupation would cover about three acres."

WHEREFORE, plaintiff prays that the said decree may be reversed, and for such other and further relief as to the court may seem just and proper.

Ray L. Chesbro
City Attorney

Loren A. Butts
Assistant City Attorney

Attorneys for Plaintiff.

[Endorsed]: Filed Dec. 12, 1933. R. S. Zimmerman, Clerk By Edmund L. Smith Deputy Clerk.

[TITLE OF COURT AND CAUSE.]

## STIPULATION FOR COSTS ON APPEAL

KNOW ALL MEN BY THESE PRESENTS, That HARTFORD ACCIDENT AND INDEMNITY COMPANY, a corporation organized and existing under the laws of the State of Connecticut and authorized to transact business in the State of California, as Surety, is held and firmly bound unto BORAX CONSOLIDATED, LIMITED, ET AL, Defendants in the above entitled action, in the penal sum of TWO HUNDRED FIFTY AND NO/100 ($250.00) DOLLARS, to be paid to said Defendants, their successors, assigns or legal representatives, for which payment well and truly to be made, the HARTFORD ACCIDENT AND INDEMNITY COMPANY binds itself, its successors and assigns, firmly by these presents.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that, Whereas, CITY OF LOS ANGELES, a municipal corporation, Plaintiff, is about to take an appeal to the United States Circuit Court of Appeals for the Ninth Circuit to reverse the Decree of December 8, 1933 made by the United States District Court, in and for the Southern District of California, Central Division in the above entitled action.

NOW, THEREFORE, if the above named Appellant shall prosecute said Appeal to effect, and answer all costs

which may be adjudged against it if it fails to make good its appeal, then this obligation shall be void; otherwise to remain in full force and effect.

SIGNED, SEALED AND DATED this 8th day of December, 1933.

[Seal] HARTFORD ACCIDENT AND INDEMNITY COMPANY

By H. B. Parkhurst,
Attorney-in-Fact.

Examined and recommended for approval as provided in Rule No. 29.

Loren A. Butts,
Attorney

STATE OF CALIFORNIA )
) ss.
County of Los Angeles )

On this 8th day of December, 1933, before me OPAL GRAVES, a Notary Public in and for the said County of Los Angeles, State of California, residing therein, duly commissioned and sworn, personally appeared H. B. Parkhurst, known to me to be the Attorney-in-Fact, of the HARTFORD ACCIDENT AND INDEMNITY COMPANY, the Corporation that executed the within instrument, and acknowledged to me that he subscribed the name of the HARTFORD ACCIDENT AND INDEMNITY

COMPANY thereto as principal and his own name as Attorney-in-Fact.

[Seal] Opal Graves

Notary Public, in and for the County of Los Angeles, State of California.

My Commission Expires June 18, 1934.

APPROVED:

Geo. Cosgrave
District Judge.

[Endorsed]: Filed Dec 12 1933 R. S. Zimmerman, Clerk By Edmund L. Smith Deputy Clerk

[TITLE OF COURT AND CAUSE.]

## STIPULATION FOR OMISSION OF PARTS OF RECORD

It is stipulated:

That in printing the record the style of the court and names of all parties, number of the cause, titles of all pleadings, papers and documents, shall be printed:

That on all pleadings subsequently to the complaint, on all orders, the findings of fact and conclusions of law, decree, motions, petition for appeal, stipulations, assignment of errors, citation on appeal, statement of the evidence and praecipe, the title of the court and cause and number of cause shall be omitted, substituting therefor, (Title of Court and Cause); that verifications shall be omitted, substituting therefor, (verified).

Dated, January 8, 1934.

Ray L. Chesebro
City Attorney
Loren A. Butts
Assistant City Attorney
Solicitors for Plaintiff.

Newlin & Ashburn
per AWA.
Solicitors for Defendants.

It is so ordered:

Geo Cosgrave
Judge

[Endorsed]: Filed Jan 8, 1934 R. S. Zimmerman Clerk By Edmund L. Smith, Deputy Clerk.

[TITLE OF COURT AND CAUSE.]

## STIPULATION

It is hereby stipulated by and between the respective parties to the above entitled action that a printed and bound book of exhibits be prepared and that there be included therein true and correct copies of plaintiff's Exhibits Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 19, 20, 21, 23, 24 and 25, and defendants' Exhibits A, B, C and D; that ten copies of said book be prepared and that the same shall be and constitute a part of the record on appeal in the above entitled action, five copies to be transmitted to the Clerk of the United States Circuit Court for the Ninth Circuit, one copy to be delivered to defendant Borax Consolidated Limited, a corporation, one copy to be delivered to defendant Pacific Coast Borax Company, a Nevada corporation, and the remaining copies to be delivered to plaintiff.

It is also hereby stipulated that the Clerk in preparing the transcript on appeal be directed to include all of the exhibits herein referred to in the book of exhibits, and wherever the same are referred to in the Statement of

the Evidence, that in lieu of said exhibit there is to be inserted in said transcript the following:

(See Volume 2, Book of Exhibits).

Dated, January 3rd, 1934.

Ray L. Chesebro
City Attorney
Loren A. Butts
Assistant City Attorney
Solicitors for Plaintiff.

Newlin & Ashburn
by A. W. Ashburn
Solicitors for Defendants.

It is so ordered.

Geo Cosgrave
District Judge

[Endorsed]: Filed Jan 8, 1934 R. S. Zimmerman, Clerk By Edmund L. Smith, Deputy Clerk.

[TITLE OF COURT AND CAUSE.]

## PRAECIPE FOR TRANSCRIPT OF RECORD

To the Clerk of the above entitled court:

You are hereby requested to make a transcript of record to be filed in the United States Circuit Court of Appeals for the Ninth Circuit, pursuant to appeal allowed in the above entitled cause, and to include in such transcript of record the following:

1. The Bill of Complaint.

2. The Answer and Counterclaim of defendants Borax Consolidated Limited and Pacific Coast Borax Company, save and except Exhibits "B", "C" and "D" attached thereto.

3. Plaintiff's Reply.

4. Memorandum decision of the court.

5. Findings of Fact and Conclusions of Law, signed and filed on December 8, 1933.

6. Final Decree, entered on December 8, 1933.

7. Petition for appeal and Order allowing same.

8. Assignment of Errors.

9. Citation on Appeal.

10. Statement of the Evidence.

11. This Praecipe.

Said transcript to be prepared as required by law and the rules of this court and the rules of the United States Circuit Court of Appeals for the Ninth Circuit and to be

filed in the office of the Clerk of said last mentioned court at San Francisco, California, on or before the 9th day of January, 1934, unless the time to file same is duly enlarged.

Dated, December 13, 1933.

Ray L. Chesebro
City Attorney

Loren A. Butts
Assistant City Attorney
Attorneys for Plaintiff.

[Endorsed]: Received copy of the within PRAECIPE FOR TRANSCRIPT OF RECORD this 13 day of December, 1933. Newlin & Ashburn Attorneys for Defendants.

Filed Dec. 15, 1933. R. S. Zimmerman Clerk By Edmund L. Smith, Deputy Clerk.

[TITLE OF COURT AND CAUSE.]

## COUNTER PRAECIPE OF DEFENDANTS AND APPELLEES

To the Clerk of the above entitled Court:

You are hereby requested, pursuant to the provisions of Equity Rule 75, to incorporate into the transcript of record on the appeal herein, in addition to the portion of the records indicated by appellant herein by its praecipe to be included in the transcript of record herein, the following:

1. Exhibits "B", "C" and "D" attached to and made a part of the answer of the undersigned defendants and appellees;

2. Petition for removal to United States District Court, signed by Newlin & Ashburn and Frank R. Wehe, and verified on July 9, 1929, by F. M. Jenifer for defendant Pacific Coast Borax Company and by A. W. Ashburn for defendant Borax Consolidated Limited;

3. Bond on Removal dated July 9, 1929, and executed by Fidelity and Deposit Company of Maryland, a corporation;

4. Order of Removal (upon Petition of defendants Borax Consolidated Limited and Pacific Coast Borax Company), dated July 11, 1929, and signed by Marshall F. McComb, Judge;

5. Motion of plaintiff to Remand Cause to State Court, dated October 4, 1929, and filed with the Clerk of the United States District Court on October 8, 1929;

6. Order of District Court of the United States, Southern District of California, Central Division, entered January 29, 1930, denying plaintiff's Motion to Remand Cause to Superior Court of Los Angeles County, California.

DATED, December 22, 1933.

NEWLIN & ASHBURN,

By A. W. Ashburn

Solicitors for Borax Consolidated Limited and Pacific Coast Borax Company, a Nevada corporation, Defendants and Appellees.

[Endorsed]: Received by Ray L. Chesebro, City Attorney Dec. 22, 1933. By Ad. M. Babsy.

Filed Dec. 22, 1933. R. S. Zimmerman, Clerk, By L. Wayne Thomas Deputy Clerk.

[Title of Court and Cause.]

CLERK'S CERTIFICATE.

I, R. S. Zimmerman, clerk of the United States District Court for the Southern District of California, do hereby certify the foregoing volume containing 708 pages, numbered from 1 to 708 inclusive, together with Volume 2, Book of Exhibits, to be the Transcript of Record on Appeal in the above entitled cause, as printed by the appellant, and presented to me for comparison and certification, and that the same has been compared and corrected by me and contains a full, true and correct copy of the citation; bill of complaint; petition for removal to Federal Court with copy of bond on removal included therein; order of removal; motion of plaintiff to remand to State Court; order denying motion to remand cause to State Court; answer and counterclaim with exhibits "A," "B," "C," and "D" attached thereto; plaintiff's reply to answer; memorandum decision; findings of fact and conclusions of law; decree; statement of evidence; petition for appeal and order allowing appeal; assignment of errors; stipulation for costs on appeal; stipulation for omission of parts of record; stipulation re book of exhibits; praecipe and counter praecipe.

I DO FURTHER CERTIFY that the amount paid for printing the foregoing record on appeal is $1396.00 and that said amount has been paid the printer by the appellant herein and a receipted bill is herewith enclosed, also that the fees of the clerk for comparing, correcting and certifying the fore-

going Record on Appeal amount to $111.85 and that said amount has been paid me by the appellant herein.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the Seal of the District Court of the United States of America, in and for the Southern District of California, Central Division, this 10th day of March, in the year of Our Lord One Thousand Nine Hundred and Thirty-four and of our Independence the One Hundred and Fifty-eighth.

[Seal] R. S. ZIMMERMAN,
Clerk of the District Court of the United States of America, in and for the Southern District of California.

By Edmund L. Smith,
Deputy.

No. 7427

IN THE

# United States Circuit Court of Appeals

## For the Ninth Circuit

THE CITY OF LOS ANGELES,
a municipal corporation,

Appellant,

vs.

BORAX CONSOLIDATED LIMITED, an English corporation, and PACIFIC COAST BORAX COMPANY, a Nevada corporation,

Appellees.

**Upon Appeal from the District Court of the United States for the Southern District of California, Central Division.**

**PROCEEDINGS HAD IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT.**

At a stated Term, to wit, the October Term, A. D. 1934 of the United States Circuit Court of Appeals for the Ninth Circuit, held in the Court Room thereof, in the City and County of San Francisco, in the State of California, on Friday the nineteenth day of October in the year of our Lord One Thousand Nine Hundred and thirty-four.

Present: Honorable CURTIS D. WILBUR, Senior Circuit Judge, Presiding, Honorable WILLIAM H. SAWTELLE, Circuit Judge, Honorable FRANCIS A. GARRECHT, Circuit Judge.

[Title of Cause.]

ORDER OF SUBMISSION.

ORDERED appeal in above cause argued by Mr. Loren A. Butts, Special Counsel, City of Los Angeles, counsel for appellant, and by Mr. A. W. Ashburn, counsel for appellees, and submitted to the court for consideration and decision.

At a stated Term, to wit, the October Term, A. D. 1934 of the United States Circuit Court of Appeals for the Ninth Circuit, held in the Court Room thereof, in the City and County of San Francisco, in the State of California, on Monday the fourteenth day of January in the year of our Lord One Thousand Nine Hundred and thirty-five.

Present: Honorable CURTIS D. WILBUR, Senior Circuit Judge, Presiding, Honorable FRANCIS A. GARRECHT, Circuit Judge.

[Title of Cause.]

ORDER DIRECTING FILING OF OPINION AND FILING AND RECORDING OF DECREE.

By direction of the court, ORDERED that the typewritten opinion this day rendered by this court in above cause be forthwith filed by the clerk, and that a decree be filed and recorded in the minutes of this court in accordance with the opinion filed.

[Title of Court and Cause.]

OPINION.

Upon Appeal from the District Court of the United States for the Southern District of California, Central Division.

Before: WILBUR and GARRECHT, Circuit Judges.

WILBUR, Circuit Judge:

Appellant brought this action to quiet title to a portion of the shore of Mormon Island, situated within the Inner Bay of San Pedro Harbor. The appellant alleged that it was the owner of certain tide lands by virtue of a grant thereof by the State of California (Stats. of Cal. 1911, p. 1256). These lands are described with particularity by metes and bounds. The appellees answered, denied title in the City and alleged that the lands were not tide lands, and alleged that they were the owners of the lands described in the complaint. Appellees also, by way of counterclaim, alleged that the land in question belonged to the appellee Borax Consolidated Limited, an English corporation, and also by separate counterclaim alleged that the City was estopped to deny the ownership of said land by the appellee Borax Consolidated Limited, by reason of the inaction of the City and its officials during a long period of time in which the appellees expended more than a million dollars in improvement of the land in question. A third counterclaim sets up an estoppel by a judgment of dismissal which it is alleged was the

result of a retraxit by the City and by the State of California in a prior action brought by the State of California before it had transferred title to the City of Los Angeles and dismissed after the City had acquired title. The appellees claim under a patent of the United States government issued to William Banning December 30, 1881 under the pre-emption laws of United States (enacted April 24, 1820). The description in the patent is as follows:

> "Lot numbered one, of section eight, in township five south, of range thirteen west of San Bernardino Meridian, in California, containing eighteen acres, and eighty-eight hundredths of an acre, according to the official plat of the survey of the said lands, returned to the General Land Office by the Surveyor General."

The plat referred to in the patent contains the following statement with reference to the lot in question: Meanders of shore of Mormon Island, surveyed by W. H. Norway under contract dated March 10, 1880, surveyed March 24, 1880, amount of survey 77ch and 40 links. Area of land surveyed by Norman 18.88 acres. Meanders of the shore of Mormon Island beginning at the meander corner 1, at ordinary high water mark, thence along the shore of the island. Then follows a statement of courses and distances from stations 1 to 14 and to the beginning.

It is clear from the plat that the lines in question were meander lines, and therefore that the boundary line of the land covered by the patent is

the shore line of Mormon Island and not the traverse lines of the patent. Jefferis v. East Omaha Land Co., 134 U. S. 178; Railroad Co. v. Schurmeir, 7 Wall. (74 U. S.) 272; St. Louis v. Rutz, 138 U. S. 226; Producers Oil Co. v. Hanzen, 238 U. S. 325; 59 L. Ed. 1330; United States v. Boynton, et al., 53 F. (2d) 297; Los Angeles v. S. P., L. A. & S. L. R. R. Co., 182 Cal. 652. This was the ruling by the Supreme Court of the State of California in an opinion written by the author of this opinion dealing with a similar description in the patent of Rancho San Pedro as it was affected by the lines of the Inner Bay exception. In that case the plat did not distinctly state that the lines of the patent were meander lines, but it is clearly inferable from the plat that the lines were meander lines. The rule in regard to meander lines is stated by the Supreme Court in Jefferis v. East Omaha Land Co., supra:

> "The meander lines are run in surveying public lands bordering upon navigable rivers not as boundaries of the tracts, but to ascertain the quantity of the land subject to sale; and the water course and not the meander line, as actually run on the land, is the boundary."

In United States v. Boynton, et al., 53 F. (2d) 297, in an opinion written by District Judge James, this court held:

> "Thus, the question we have to determine is whether Snow, in indicating a high-tide line, definitely fixed a shore line survey. Meander lines, as used in land surveys, where they indi-

cate a course along navigable waters, refer to the line as the water itself may delineate it, subject to changes that different tides or water flows may work. St. Paul & P. R. Co. v. Schurmeir, 7 Wall. (74 U. S.) 272, 19 L. Ed. 74; Hardin v. Jordan, 140 U. S. 371, 11 S. Ct. 808, 838, 35 L. Ed. 428; Taylor v. United States (C. C. A.) 44 F. (2d) 531. Because a meander line, as carried into field notes, shows corners, posts, monuments, and courses, does not result in the line so delineated becoming definite and fixed. Some action must have been taken, or words used in the instrument of conveyance, which will show that the grantor has agreed that such line shall be considered as having more than its assigned character; it must be agreed that it indicates a definite boundary limit."

These principles are insisted upon by the appellant and are not disputed by the appellees. The difference between the parties in the case at bar arises from the fact that according to the contention of the appellant the stations 4 to 11, inclusive, and the meander line connecting them, all lie below the line of ordinary high tide. The lands claimed by the appellees lie within the traverse lines connecting stations 3 and 12 of the patent, and north of a line running north 78° 23″ west, distant 345 ft. connecting traverse lines last mentioned, the exact location of which is unnecessary to fix for our present purposes. The appellant's contention is that inasmuch

as the lies bounding Mormon Island are meander lines that the lines themselves may be wholly disregarded in fixing the position and area of the uplands of Mormon Island. The contention of the appellees is that it was the duty of the government surveyor who surveyed Mormon Island to determine the location of the boundary between the uplands which were to be conveyed by patent from the government, and the shore which belonged to the state by virtue of its sovereignty, and that the stations purporting to be on the shore line must be held as defining the shore line, and it is claimed in effect that in the absence of proof of the exact location of the shore line between the stations, the traverse line should be taken as the shore line. The trial court sustained the appellees' contention and held that the shore line was conclusively determined by the patent and that the city could not prove its actual location.

Mormon Island, aside from a small area, is composed of mud flats, the surface of which is in places almost horizontal, and in other places the plane of the surface forms a very acute angle with the horizontal so the small additional rise of the tide will result in the flooding of a large area of the ground. At the time of the patent these lands were comparatively worthless, but by reason of the improvement of Los Angeles Harbor by dredging and filling, they have become extremely valuable. The evidence shows that the city paid at the rate of $49,000 per acre for a portion of the unimproved upland of Mormon Island.

To support the conclusion of the trial court that the Surveyor General had jurisdiction to decide the location of the shore line and having done so that his determination is conclusive upon the courts, the case principally relied upon by the appellees is Knight v. United Land Assn., 142 U. S. 161, dealing with title to lands in Mission Creek, a tidal tributary to San Francisco Bay. It was held by the Supreme Court in that case that the lines run by the Surveyor General in pursuance of a decree confirming a land grant by the Republic of Mexico to the Pueblo of San Francisco, purporting to follow the mean high tide line, was conclusive as to the location of that line and therefore that the question of whether or not the submerged lands of Mission Creek were conveyed by the patent to the Pueblo was not open for consideration regardless of the question as to whether or not the lands, beneath Mission Creek were tide lands. That case, however, has no application to the situation involved in the case at bar, as is clearly pointed out in the opinion. There, the duty of ascertaining and delimiting Mexican grants was conferred upon the federal courts. The rights granted by Mexico to tide lands were prior to the rights thereto of our federal or state governments. Consequently, if the Mexican grant conveyed tide lands the title thereto was vested in the grantee regardless of the fact that such land would otherwise belong to the state by virtue of its sovereignty. The determination of the lines of the Mexican grant was made by the federal government in the mode pre-

scribed in order to comply with the treaty of Guadalupe Hidalgo. As pointed out by Justice Field in his concurring opinion, 142 U. S. 161, 204, the Supreme Court of California, prior to the decision by it in the Knight case (85 Cal. 448), then under review, had consistently followed the rule that the lines of the United States patent confirming and delimiting the Mexican grant were conclusive. Moore v. Wilkinson, 13 Cal. 478; People v. San Francisco, 75 Cal. 388. No such situation is presented in the case at bar.

Here the title to the tide lands vested in the state of California long before the survey in question was made. No authority was vested by law in the Surveyor General to determine the boundary line between the tide land belonging to the state and the upland belonging to the United States. Even if it be conceded that such jurisdiction existed in the federal government there was no attempt to exercise such jurisdiction. The survey was to determine the amount of the upland for the purpose of fixing the amount to be paid by the patentee for the land. (Jefferis v. East Omaha Land Co., supra.) Congress has given no authority to the Interior Department to dispose of tide lands belonging to the State or to the Nation. The Interior Department did not purport to exercise any such authority. The case of Knight v. Land Co., supra, is not applicable to the survey in question.

The appellees also rely upon an entirely distinct line of cases dealing with swamp and overflowed lands. These lands were granted to the state by the

federal government by the Arkansas Act of September 28, 1850, 9 Stat. 519. This statute in addition to the grant in praesenti to the states provided for the survey and segregation thereof by the officers of the federal government. It has been held that pending the survey of such lands the state acquired an equitable title of which it could dispose subject to the subsequent identification of the land in the manner provided by law. Wright v. Roseberry, 121 U. S. 509; Tubbs v. Wilhoit, 138 U. S. 134; Foss v. Johnstone, 158 Cal. 119, 131, 134, 135. Under such circumstances it is held that the act of the officers of the federal government in delimiting the swamp and overflowed lands thus conveyed is conclusive against collateral attack in both the state and federal courts as to the character of the land. The cases of Foss v. Johnstone, 158 Cal. 119; Bates v. Halstead, 130 Cal. 62; Cragin v. Powell, 128 U. S. 691, 32 L. Ed. 566; Northern Pac. R. Co. v. McComas, 250 U. S. 387, 63 L. Ed. 1049, 1053; Heath v. Wallace, 138 U. S. 573, 34 L. Ed. 1063; Franch v. Fyan, 93 U. S. 160, 23 L. Ed. 812; Chandler v. Calumet, etc. Co., 149 U. S. 79, 37 L. Ed. 657, deal with swamp and overflowed land and have no application to surveys of lands bordering navigable waters made under the preemption laws for the purpose of fixing the quantity of land to be conveyed by patent where such lands are bounded by tide water.

We conclude, then, that the shore line of Mormon Island is the boundary of the land granted; that the

federal government had neither the power nor the intention of conveying tide lands by the patent to Banning, that the rights of the patentee and his grantees are limited to the upland of the Island. (Gary Land Co. v. Griesel, 179 Ind. 204, 100 N. E. 673; Kean v. Calumet Canal & Imp. Co., 190 U. S. 452; R. R. Co. v. Schurmeir, 7 Wall. (74 U. S.) 272, supra.) In view of the erroneous ruling of the trial court holding the stations and traverse lines of the patent conclusive as to the location of the shore line it will be necessary to reverse the decision and remand the case for a new trial.

The appellees seek to sustain the decree upon several grounds which we will briefly notice. Their contention that the facts stated in the counts setting up estoppel in pais and by judgment are sufficiently admitted by appellant's reply to justify a decree in their favor, will not be considered in view of the fact that the question was not presented to or considered by the trial court.

Appellees seek to support the judgment upon several grounds affecting the allegation and proof of appellant in regard to its title. The failure of the appellant to prove its case would not be decisive on appeal for the reason that the defendant secured an affirmative judgment quieting its title and the question on appeal is whether this affirmative judgment in favor of appellees can be affirmed.

Appellees advance numerous contentions in regard to the failure of appellant to allege and prove the boundary line of Mormon Island. These questions are only important from the standpoint of a new

trial. For the guidance of the trial court upon a new trial we feel that one contention of the appellees as to the boundary line between the upland and the tide land of the Island should be considered.

In the case at bar the importance of the location of the exact position of the line of ordinary high water is manifest from the statement by the appellees in their brief that, "the lowering or raising by one-tenth of a foot may result in the gain or loss of acres, and there are only seven acres here involved." In this opinion we have so far referred to that line as the "shore line" in order to avoid the confusion which would have arisen from dealing with that issue in connection with the legal question as to the conclusiveness of the meander line of the patent as locating the line of ordinary high tide. We will now consider the location of the shore line. It has been assumed by the appellant that the mean high tide line is that boundary line, and that this line is 5.1 feet above the mean low tide line in the Bay of San Pedro whose waters surround Mormon Island. This was the boundary line fixed by the courts of California in the case of Los Angeles v. San Pedro, supra, involving tide lands in the Inner Harbor at San Pedro. It is true, however, as appellees state, that this line 5.1 feet above mean low tide was agreed upon by the parties and upon that basis assumed by the court to be the boundary line between the tide lands and the upland. It is shown by reports of the government engineers contained in the record that 5.1 feet was the elevation of the

plane of mean high water above that of mean low water. The exact height of the mean high tide line above the mean low water that is whether 5.8 feet, 5.1 feet or 4.7 feet we need not consider on this appeal. That question is one of fact which should be determined by the trial court in the first instance. The appellant, however, contends for the rule that the boundary line between the tide lands and upland is determined "by definite mark upon the ground which has been left by the tide." This rule as to a definite mark is applicable to the high water line of streams but not to a boundary line of tide waters. The appellees contend that the 4.7 line is the shore line and relies in support of that contention upon the rule defining the boundary line between tide lands and upland stated in Teschemacher v. Thompson, 18 Cal. 11, by Justice Field, who was then a member of the Supreme Court of the State of California, and that this rule makes the line reached by the neap tides the boundary line and that neap tides within this rule are those described in the publication issued by the United States Coast and Geodetic Survey, Special Publication No. 135, defining neap tides, as follows:

> "When the moon is in its first and third quarters, the tidal forces of sun and moon are opposed and the tide does not rise as high nor fall as low as on the average. At such times the tides are called 'neap tides' and the range of the tide then is known as the 'neap range'."

The rule is stated by Justice Field in Teschemacher v. Thompson, supra, is as follows:

> "The limit of the monthly spring tides is, in one sense, the usual high water mark; for, as often as those tides occur, to that limit the flow extends. But it is not the limit to which we refer when we speak of 'usual' or 'ordinary' high water mark. By that designation we mean the limit reached by the neap tides; that is, those tides which happen between the full and change of the moon, twice in every twenty-four hours."

This statement of Justice Field, it may be observed, was dictum, for the decision was expressly placed on other grounds. Nevertheless, as this rule has been frequently quoted by the Supreme Court of California, and in as recent as case as Oakland v. E. K. Wood Lbr. Co., 211 Cal. 16, it is important that it be considered. The excerpt which we have quoted itself contains the definition of the term "neap tides" applicable in fixing the line of ordinary high tide as "those tides which happen between the full and change of the moon, twice in every twenty-four hours." In the authority cited by Justice Field the matter is made quite clear. We quote from "Hall on the Sea Shore", as follows:

> "But with us it has been long settled, that that portion only of the land adjacent to the sea, which is alternately covered and left dry by the ordinary flux and reflux of the tides is,

in legal intendment, the sea-shore. * * * But in fact, no more of this unreclaimed tract is, at law, sea-shore, than that portion which lies between the high-water and low-water mark, at ordinary tides.

"The law takes notice of three kinds of tides:

"1st. The high spring tides, which are the fluxes of the sea at those tides which happen at the two equinoctials.

"2nd. The spring tides, which happen twice every month at the full and change of the moon.

"3rd. The neap, or ordinary tides, which happen between the full and change of the moon, twice in the twenty-four hours."

This excerpt shows that the change of the moon referred to is the "new moon". Consequently, the neap tides as defined by Justice Field are those which happen between the full and new moon, twice in every 24 hours. As high tides occur twice each day and differ from day to day the line of the neap tides (as defined by Hall on the Sea Shore) would not establish any definite or fixed boundary.

It is evident when we consider the above language quoted from Hall on the Sea Shore, and when we consider the fact that the shore line is the boundary between tillable land or land available for agricultural purposes and land so frequently covered by the sea, that it is useless for agricultural purposes, that the average or mean of the high tides would be the appropriate line defining the boundary between the tillable upland and the lands which

were ordinarily submerged by the tide. In other words, that the "ordinary high tide" is the "average" of all the high tides, that is, the mean high tide line. While Justice Field in the above quotation would seem to indicate that the neap tides were all the tides between the full and new moon and inferentially exclude from the definition of neap tides the spring tides occurring approximately at the time of the new and full moon, the quotation is merely a rough statement of a rule which must be more accurately defined in fixing a definite line of demarcation. There is no inherent reason why the highest tide nearest to the full and new moon should be excluded from the average. Justice Field emphasizes the fact that the spring high tide mark is not the boundary line of the tide lands. It is obvious that these spring tides must be included in the tides to be averaged if we are to determine the line usually reached, that is, reached on the average, by the high tide. This view of the line of the average high tide as the boundary line between tide land and upland is accepted in Attorney General v. Chambers, 4 DeG. M & G 206, 43 Eng. Reprint 486, before the Lord Chancellor Lord Cranworth, assisted by Mr. Baron Alderson and Mr. Justice Maule, decided in 1854, the associates of the Lord Chancellor recommending in part as follows:

> "The medium tides therefore of each quarter of the tidal period afford a criterion which we think may be best adopted. * * * And as some not indeed perfectly accurate construction, but

approximate, must be given to the words 'highest ordinary tides' used by Mr. Justice Holroyd [in Blundell v. Catterall, 5 B. & A. 268, 290] we think, after fully considering it, that this best fulfils the rules and the reasons for it, given in our books.

"We therefore beg to advise your Lordship that, in our opinion, the average of these medium tides in each quarter of lunar revolution during the year gives the limit, in the absence of all usage, to the rights of the Crown on the seashore."

Apparently this conclusion was adopted by the Lord Chancellor, although he does not distinguish between the medium tide between the spring and neap tides, and the average of those tides for the period of a year which was the line suggested by his associates. The Lord Chancellor said, "I therefore concur with the able opinion of the judges, whose valuable assistance I had, in thinking that medium line [medium high tide between the springs and the neaps] must be treated as bounding the right of the Crown." An increased knowledge of the effect of the moon and sun upon the tides and the necessity of more definite and certain delineation of the boundary line between tide lands owned by the state in its sovereign capacity, has fixed the boundary line as the mean high tide line. It is neither the spring tide nor the highest spring tide, nor the neap tides defined in accordance with the

government publication above referred to, but a mean of all the high tides. To fix this mark to a certainty it is necessary to observe, or compute, the tide for many years (at least 18.6) although ordinarily it can be fixed with reasonable certainty by averaging the tides for a single month. This appears from the definition of mean high tide given in Special Publication No. 135, above referred to, as follows:

> "Mean high water at any place is the average height of all the high waters at that place over a considerable period of time. To determine just how long a series of tide observations is required to derive a satisfactory value of mean high water it is necessary to consider in detail the variations to which high water is subject. * * *
>
> "These variations, which are of a periodic character, are due to changes in the position of the moon with respect to phase, distance, and declination. * * *
>
> "The daily height of high water is subject to relatively large variations both periodic and nonperiodic in character. The periodic variations depend primarily on the phase, distance, and declination of the moon, the periods of these being approximately 29½, 27½ and 27-1/3 days, respectively. Such variations are therefore largely eliminated within a month. And within a month, too, the large variations in sea level due to wind and weather tend to bal-

ance out. It follows, therefore, that a much closer approximation to the plane of mean high water can be secured from a month than from one day of observations. * * * Within the same year the monthly heights of high water may differ by as much as a foot. * * *

"Generally, consecutive yearly heights of high water at a station are seen to differ by not more than a few hundredths of a foot, though at times this difference may be as much as a quarter of a foot. Within a period of 20 years yearly values of high water may differ by as much as half a foot, even at stations free from the disturbing effects brought about by large fluctuations in river discharge. * * *

"If the height of high water above sea level from year to year is plotted for a number of years, a distinct periodic variation comes to light, the period being approximately 19 years. * * *

"From theoretical considerations of an astronomical character it follows that there should be a periodic variation in the rise of high water above sea level having a period of 18.6 years. This is brought about by the change in longitude of the moon's node, which introduces a variation in the inclination of the lunar orbit to the plane of the earth's Equator."

It would seem then that in order to ascertain the mean high tide line with the requisite certainty

needed in fixing the boundary line of valuable tide lands an average for 18.6 years should be determined as near as possible by observation or calculation. This mean high tide line is the one usually referred to by the United States government in its patents and in the work of its various departments delimiting the boundary between the upland and the tide land. The plat referred to in the patent in the case at bar fixes the mean high tide line as the boundary line, the act of the legislature of the State of California conveying title to the City of Los Angeles, conveys "all tide lands and submerged lands * * * situated below the line of mean high tide".

The trial court, upon the retrial of this case, should determine the location of the mean high tide line as hereinbefore defined, as the boundary line between the land described in the Banning patent and the tide land belonging to the State of California. We have not dealt with the questions which are discussed in the brief of the appellees concerning the effect upon the tide line of the dredging of the Inner Bay at San Pedro, nor concerning the effect of the freshets. The rule with regard to these matters is too well settled to require a statement thereof in this opinion. The question of the mean high tide line is one of fact and the effect of the shifting of that line on the rights to tide land and upland are well settled. We merely refer to the matter to make it clear that we have not passed upon that question.

The decree is reversed and the case remanded to the trial court for further proceedings not inconsistent with this opinion.

[Endorsed]: Opinion. Filed Jan. 14, 1935. Paul P. O'Brien, Clerk.

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United States Circuit Court of Appeals
for the Ninth Circuit

No. 7427

THE CITY OF LOS ANGELES,
a municipal corporation,

Appellant,

vs.

BORAX CONSOLIDATED LTD., and
PACIFIC COAST BORAX CO.,

Appellees.

## DECREE

APPEAL from the District Court of the United States for the Southern District of California, Central Division.

THIS CAUSE came on to be heard on the Transcript of the Record from the District Court of the United States for the Southern District of California, Central Division, and was duly submitted;

ON CONSIDERATION WHEREOF, it is now here ordered, adjudged, and decreed by this Court, that the decree of the said District Court in this cause be, and hereby is, reversed, with costs in favor

of the appellant and against the appellees, and that this cause be, and hereby is remanded to the said District Court for further proceedings not inconsistent with the opinion of this court.

IT IS FURTHER ORDERED, ADJUDGED, AND DECREED by this Court, that the appellant recover against the appellees for its costs herein expended, and have execution therefor.

[Endorsed]: Filed and entered Jan. 14, 1935. Paul P. O'Brien, Clerk.

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At a stated Term, to wit, the October Term, A. D. 1934 of the United States Circuit Court of Appeals for the Ninth Circuit, held in the Court Room thereof, in the City and County of San Francisco, in the State of California, on Monday the twenty-fifth day of March in the year of our Lord One Thousand Nine Hundred and thirty-five.

Present: Honorable CURTIS D. WILBUR, Senior Circuit Judge, Presiding, Honorable WILLIAM DENMAN, Circuit Judge, Honorable HAROLD LOUDERBACK, District Judge.

[Title of Cause.]

ORDER DENYING PETITION FOR A REHEARING.

Upon consideration of the petition of appellees, filed February 12, 1935, for a rehearing of above cause, and of the reply of appellant thereto, filed

February 25, 1935, and by direction of the court, IT IS ORDERED that said petition for a rehearing be, and hereby is denied.

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[Title of Court and Cause.]

ORDER STAYING ISSUANCE OF MANDATE.

Upon application of Messrs. Newlin & Ashburn, counsel for the appellees, and good cause therefor appearing, IT IS ORDERED that the issuance, under Rule 32, of the mandate of this Court in the above cause be, and hereby is stayed to and including April 29, 1935; and in the event the petition for a writ of certiorari to be made by the appellees herein be docketed in the Clerk's office of the Supreme Court of the United States on or before said date, then the mandate of this Court is to be stayed until after the said Supreme Court passes upon the said petition.

CURTIS D. WILBUR,
United States Circuit Judge.

Dated: San Francisco, California, March 25, 1935.

[Endorsed]: Filed Mar. 25, 1935. Paul P. O'Brien, Clerk.

[Title of Court and Cause.]

## CERTIFICATE OF CLERK U. S. CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT TO REORD CERTIFIED UNDER RULE 38 OF THE REVISED RULES OF THE SUPREME COURT OF THE UNITED STATES.

I, PAUL P. O'BRIEN, as Clerk of the United States Circuit Court of Appeals for the Ninth Circuit, do hereby certify the foregoing volume I, consisting of seven hundred and thirty-five (735) pages, numbered from and including 1 to and including 735, together with Book of Exhibits Accompanying Transcript of Record, being volume II, consisting of thirty-one (31) pages, numbered from and including 1 to and including 31, to be a full, true and correct copy of the entire record of the above-entitled case in the said Circuit Court of Appeals, made pursuant to request of counsel for the appellees, and certified under Rule 38 of the Revised Rules of the Supreme Court of the United States, as the originals thereof remain on file and appear of record in my office.

ATTEST my hand and the seal of the said the United States Circuit Court of Appeals for the Ninth Circuit, at the City of San Francisco, in the State of California, this 1st day of April, A. D. 1935.

[Seal] PAUL P. O'BRIEN,
Clerk.

SUPREME COURT OF THE UNITED STATES

ORDER ALLOWING CERTIORARI—Filed June 3, 1935

The petition herein for a writ of certiorari to the United States Circuit Court of Appeals for the Ninth Circuit is granted. And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.